

**OU 7-10 Staged Interim Action Project, Stage II, Title II
Response Report - sorted by Unique Comment Number**

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3901
Document:	Binder V Env/Saf/Q Docs	Category: Chemistry/Radiochemistry (SMO)	
Location:	DOE/ID-10789 Waste Management Plan		
Comment:	Page 4-8, Section 4.2.1.2		

87. Please explain how this project will ensure that listed/characteristic soils will be properly identified and handled, when not all drums potentially containing these listed or characteristic wastes will be sampled and analyzed. Even for underburden soils, it is not clear how the stated analyses will identify listed or characteristic wastes in each drum.

Response by Brent Burton. We recommend taking under consideration the collection of data sufficient to support a complete hazardous waste determination during Stage II. The scope and impact of the changes would be defined and evaluated via Change Requests. Current characterization is aimed at satisfying Stage II objectives, including characterization for safe storage. This approach is consistent with an interpretation that a complete HWD is not needed for storage but would be needed if wastes or soils were sent off site or for disposal. Regarding proper management, note that all Pit 9 derived wastes will be managed in compliance with Subpart I of 40 CFR 264 while in CERCLA storage whether characterized as hazardous waste or not (as best management practice per Agency request - see page 19 of EDF-ER-071, 3rd paragraph). [This is a consolidated response to comments 3106 (Binder I-A), 3107 (Binder I-A), 3116 (Binder II), 3118 (Binder II), 3901 (Binder V), and 3991 (Binder I-A).]

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3902
Document:	Binder V Env/Saf/Q Docs	Category: Chemistry/Radiochemistry (SMO)	
Location:	DOE/ID-10789 Waste Management Plan		
Comment:	Page 4-10, Section 4.2.2.1		

88. For operations wastes, under the subheading "PPE", the text states that personnel in the soil handling center will wear launderable work coveralls; where will this clothing be laundered, and how will wastewater from this laundry be managed?

Response by Brent Burton. We recommend not making a change to the document. The PPE is sent to an approved offsite vendor under an INEEL subcontract. This activity is not a project specific task and generates no waste streams under control of the project.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3903
Document:	Binder V Env/Saf/Q Docs	Category: Industrial Hygiene	
Location:	DOE/ID-10789 Waste Management Plan		
Comment:	Page 4-12, Section 4.2.2.2		

89. Please address this same issue regarding launderable PPE for maintenance wastes under the subheading PPE, with regard to the location of the laundry and how wastewater from it will be handled.

Response by Brent Burton. We recommend not making a change to the document. The PPE is sent to an approved, offsite vendor under an INEEL subcontract. This activity is not a project specific task and generates no waste streams under control of the project.

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EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3904
Document:	Binder V Env/Saf/Q Docs	Category: Industrial Safety	
Location:	DOE/ID-10790 Pollution Prevention/Waste Minimization Plan		
Comment:	Page 3-15, Section 3.2.7		

90. Text states that drums whose materials show indications of incompatibility (i.e., generation of gas, fumes, or heat) during the retrieval and handling processes will be placed in short term isolated storage. Since this part of the text discusses the CERCLA storage building, it appears that this will also be the location of this short term storage; however, this is not clear. Suggest that these drums remain within primary confinement to limit any releases that could occur as a result of incompatibility, and to facilitate drum opening and re-segregating incompatible items.

Response by Brent Burton. We recommend that the text of the Pollution Prevention/Waste Minimization Plan, EDF-ER-137, Chemical Compatibility Assessment Report and the Waste Management Plan be clarified as follows: (1) Incompatible or unknown wastes, at a minimum, will be placed in isolated storage pending final characterization; (2) pending characterization the preferred storage location is in the RAE subject to space limitations; and (3) If RAE storage space is not available, storage in the EEF is the next preferred location. A special case handling procedure would be developed to address this management scenario. Separated storage in the CERCLA storage facility is also viewed as compliant/viable but is not the preferred option.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3905
Document:	Binder V Env/Saf/Q Docs	Category: Other (clarification/wording)	
Location:	DOE/ID-10790 Pollution Prevention/Waste Minimization Plan		
Comment:	Page 3-15, Section 3.2.7.1		

91. Text lists criteria for return to pit (RTP) wastes; the way this is phrased suggests that wastes must be less than or equal to 10 nCi/gm, must meet the threshold criteria for residual risk for COC; and must contain PCBs above 50 ppm. This should be rephrased; one of the criteria for RTP wastes is that PCB concentrations be less than 50 ppm (not above 50 ppm).

Response by Brent Burton. We recommend that the referenced text be changed as requested such that it is clear that materials would have to be less than 50 ppm when excavated to qualify for return to pit.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3906
Document:	Binder V Env/Saf/Q Docs	Category: Rad Safety	
Location:	INEEL/EXT-2000-000690 Preliminary Criticality Safety Evaluation		
Comment:	Page 8, Section 5		

92. Section 5 is Discussion of Contingencies. Please include a contingency for the potential for buildup of sufficient mass for criticality in the soil vacuuming system, including the soil hopper, soil hopper drum, and the piping and hoses that will be part of this system.

Response by Comment Processing CPT. Per Tri-Party agreement at the 10/3/00 Agency Face-to-Face meeting, we recommend revising Phase I O&M Plan Procedure EOP-006 Sections 4.5 and 4.6 to include limiting clogging and build ups in the SHS for criticality control, and to address the potential role of the digface monitor in criticality control. [This is a consolidated response to comments 3129 (Binder V) and 3906 (Binder V).]

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EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3907
Document:	Binder VI Misc Docs		
Location:	PLN-632, OU 7-10 SIA Project Physical Security Plan, INEEL Company Manual 11		
Comment:	Page 7 and 8, Section 6.5.7		

93. This section shows that the storage building will have a primary confinement structure for securing objects (drums or other) pending identification. "Securing" includes controlled access via a specific type of lock, and preventing visual access. Storage building diagrams in other binders do not show a controlled access area. Binder 11C does describe this briefly in SDD-23 (Storage System), and states in Section 4.1.3.1.8, Page 26, that a controlled access section will not be constructed unless classified materials are discovered, at which time a simple barrier, such as a chain-link fence, will be erected. A chain link fence alone will not prevent visual access; hence, the requirements of the Physical Security Plan do not appear to have been entirely communicated to the Storage System design team. An alternate barrier to prevent visual access, or an addition to a chain-link fence, will be needed to fully meet the physical security needs.

Response by Patricia Jurbala. Recommend adding a drawing to the Specification that shows a designated storage area that will be constructed, if necessary. Note: visual access is not a problem because all materials will be concealed inside of drums. No other document changes are necessary.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3908
Document:	Binder X ICDs		
Location:	IAG-63, Stage II, ICD between the EEF and all other Systems		
Comment:	Page 15, Section 3.4.2.2		

94. This section describes EEF operating surfaces, including carbon steel plates that will be the operating surface for the mobile drum handler. One item specifically mentioned about these plates is that they shall be sufficiently level to prevent either a full or empty mobile drum handler from rolling or continuing motion on its own. Because these plates may settle and/or shift as work progresses on them, a level surface may change to an angled surface over time. A suggested option for this issue would be to build the mobile drum handler with a brake that must be unlocked before the drum handler could be moved, which would prevent unwanted motion.

Response by Kirt Jamison. The carbon steel plates used for the operating surface of the mobile drum handler are stabilized to prevent horizontal and vertical shifting due to drum handler operation or other use (See sheet S-12 EEF Drum Handler Floor Plate Plan & Sections; see also response to Unique Comment 3909). The suggested option of adding a brake to the mobile drum handler has already been included as part of the procurement specification for the electric forklift for the EEF. "The forklift shall be equipped with service brakes and an independent emergency brake." (See section 3.4.8, SPC-246) We recommend adding text to IAG-63 to identify that the forklift/drum handler has brakes and recommend that operating procedures reflect their use.

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EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3909
Document:	Binder X ICDs	Category: Industrial Safety	
Location:	IAG-63, Stage II, ICD between the EEF and all other Systems		
Comment:	Page 15, Section 3.4.2.2		

95. According to WMF-671/WMF-673, Figure S-12 (Binder 12C), there is no apparent plan to secure the carbon steel plates so that they are immobile. These plates could shift relative to each other and produce gaps, and drum handler movement would be difficult or impossible across these gaps. It is suggested that the project include a plan to affix these plates to the underlying surface, or each other, so that there is no movement between these plates and subsequent gaps created. It is also unclear whether these plates will sit on, or be directly in contact with, bare earth. If so, these plates may corrode. Have alternate materials for this mobile drum handler surface been considered, such as concrete, wood, or a hard, durable plastic mat? Alternatively, the steel plates could be set on a surface that will not expose them to moisture.

Response by Kirt Jamison. The carbon steel plates used for the operating surface of the mobile drum handler are affixed to the underlying surface by the vertical leg of angle which projects vertically into the existing soil, thus holding it in place. (See sheet S-12 EEF Drum Handler Floor Plate Plan & Sections). The carbon steel plates sit directly on polyethylene flooring which covers the soil. Polyethylene flooring was selected over several other materials (e.g., coated fabrics, polyurea spray elastomer, hard rubber) based on its ability to handle foot and forklift traffic, and cost. This design selection is documented in EDF-ER-159. We recommend modifying the text in IAG-63 to identify Binder XII-C - Environmental Enclosure Facility (EEF) Drawings, Sheet S-12 EEF Drum Handler Floor Plate Plan & Sections as the appropriate source for information on floor plates. General corrosion is not a concern since plates sit directly on stabilizing polyethylene flooring. Incidental corrosion near the stabilizing angle would be minimal, and thus, not a significant design issue.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3910
Document:	Binder X ICDs	Category: Industrial Safety	
Location:	IAG-63, Stage II, ICD between the EEF and all other Systems		
Comment:	Page 15, Section 3.4.2.2		

96. One of the drawings referenced in IAG-634 (WMF 671 Sheet MH-103) could not be located; the other drawing (WMF-671 Sheet MH-112) was located, but did not clearly show any features that would prevent shifting or movement between plates. Drawings should show the proposed design for these plates more clearly.

Response by Kirt Jamison. The referenced sheets, MH-103 and MH-112, were submitted as part of a 90% design submittal on April 20, 2000. Neither drawing provides sufficient information regarding the floor plates. We recommend modifying the text in IAG-63 to identify Binder XII-C - Environmental Enclosure Facility (EEF) Drawings, Sheet S-12 EEF Drum Handler Floor Plate Plan & Sections as the appropriate source for this information. Binder XII was submitted as part of the June 15, 2000 RD/RA Work Package. This drawing shows the vertical leg of angle, which is the principal design feature for restricting shifting or movement between plates.

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EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3911
Document:	Binder X ICDs		
Location:	IAG-63, Stage II, ICD between the EEF and all other Systems		
Comment:	Page 16, Section 3.4.3.3		

97. This section discusses the negative pressure differential between the EEF and the Material Handling Cell (MHC) glovebox. The text states that "The negative pressure differential shall be at least 0.6 inches of water equivalent, as well as a minimum of 10 air changes per hour (ach), under normal operating conditions." This is ambiguous; please clarify whether it is the EEF or the MHC glovebox that will have the minimum of 10 ach.

Response by Kirt Jamison. The "...minimum of 10 air changes per hour (ach), under normal operating conditions." applies to the Material Handling Cell (MHC). We recommend modifying IAG-63 text to more clearly state that the MHC glovebox will have a minimum of 10 air changes per hour.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3912
Document:	Binder X ICDs		
Location:	IAG-63, Stage II, ICD between the EEF and all other Systems		
Comment:	Page 16, Section 3.4.4.2		

98. This section discusses lighting. The text states that the MHC glovebox lighting will be provided on the outside of the gloveboxes. Please clarify whether these lights will shine on the gloveboxes from above, rather than from the sides; light from the sides could cause glare and hinder the view of the glovebox interior. Placement of lighting is not clear from either the text or the referenced figure (WMF-671, OU 7-10 SIA S-II, sheet E-17).

Response by Kirt Jamison. Lighting in the MHC glovebox will be provided by overhead lights. Six overhead lights are called out in section 3.4.4.2 and are shown in drawing E-17 RAE/MHC Light Plan. We recommend clarifying the text in the IAG to more clearly identify MHC lighting as being overhead lighting and recommend referencing drawing E-17 (in place of E-16), which more clearly shows the location of this lighting.

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EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3913
Document:	Binder X ICDs	Category: Technical	
Location:	IAG-64, Stage II, ICD between the ERS and all other Systems		
Comment:	Page 14, Section 3.6.2.1		

99. The text in this section states that the maximum weight of overpack containers is 2,000 pounds (for the waste plus container). Since the maximum carrying capacity of the Mobile Drum Handler (IAG-63, page 14, section 3.4.2.1; also per Binder 16-B, MLA Drum Load-out Design EDF, page 18) is only 1,500 pounds, how will overpack containers be moved? Alternatively, how will these overpack containers be removed from the EEF, if not via the MHC using the Mobile Drum Handler? Please clarify.

Response by Kirt Jamison. The electric forklift for the Environmental Enclosure Facility will be utilized in a number of different configurations. One of those configurations includes the use of the Waldon Drum Handler as an accessory. As such, the forklift will be moving drums from the material loadout area to the fissile monitoring station and from the monitoring station to various staging locations within the EEF. Its load capabilities in this configuration are documented as you have noted in your comment. The forklift will also be utilized to move items into and out of the RAE airlock, including overpacks. In this configuration, the forklift will be capable of moving loads of greater than 2000 lbs. The procurement specification for the forklift (SPC-246) requires a 5000 lbs. load capability. This forklift will also be used to convey overpack containers to other parts of the EEF or to load the container for removal from the EEF. In addition to the procurement specification (SPC-246), the Facilities SDD (Binder XI-A) calls out the specifications for this forklift on p. 109. If overpack containers coming out of the RAE airlock are lighter than 1500 lbs. and use of the Mobile Drum Handler would be a more effective tool for moving the container then the handler may be used. We recommend adding a note to the IAG, which clarifies the use of the EEF forklift for overpack containers and points the reader to the procurement specification and the Facilities SDD if more information is desired.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3914
Document:	Binder X ICDs	Category: Industrial Safety	
Location:	IAG-66, Stage II, ICD between the SS and all other Systems		
Comment:	Page 17, Section 3.10.2.2		

100. The text states that the Stage II transport vehicle shall not, when fully loaded, exceed the load-bearing capacity of the road to the Storage System. A bridge to be crossed on this road has a load-bearing capacity of 50 tons. The load-bearing capacity of the roadway itself is not stated. The text should state the load-bearing capacity of the road itself. Also, is the sum of the weight of the truck when empty, plus the weight of the materials carried, sufficient information to ensure that these weight restrictions will not be exceeded? Or should a truck scale be included in this design? Please explain.

Response by Doug Morrell. We recommend that the text be modified to include the load-bearing capacity of the roadway. All drums will be weighed following packaging, and administrative controls will be used to verify that the weight of the truck and the drums in transport does not exceed load bearing capacity. We recommend that a truck scale is not required.

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EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3915
Document:	Binder X ICDs		
Location:	IAG-67, Stage II, ICD between the DAMS and all other Systems		
Comment:	General		

101. Although this IAG describes several types of information to be collected at various points in the retrieval process, it does not describe whether information collected at one part of the process can be related to other information collected in a different part, but for the same unit of soil or waste. Specifically, will the data be organized so that analyses for material in a given drum can be correlated to a specific xyz point in the pit that it was collected from, and also what the corresponding digface data might be? This information may be quite useful, and the ability to make this correlation should be shown in this IAG.

Response by James Case. We recommend incorporating the clarification proposed by the commentor. Although the SDD for the DAMS subsystem already addresses this topic in detail, additional clarification should be present in the IAG.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3916
Document:	Binder X ICDs		
Location:	IAG-67, Stage II, ICD between the DAMS and all other Systems		
Comment:	General		

102. A check of Binder 11D, Appendix D, shows that xyz data will be collected and correlated to each drum of soil and waste. However, the IAG should reiterate this information.

Response by James Case. We recommend incorporating the clarification proposed by the commentor. Although the SDD for the DAMS subsystem already addresses this topic in detail, additional clarification should be present in the IAG.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3917
Document:	Binder XXIII-A 100% Final Storage Bldg		
Location:	Part 1		
	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction		

Comment: General

103. Please show the need for a structure for securing objects within the Storage Facility, as noted in Binder 5, Physical Security Plan, Pages 7 and 8, Section 6.5.7. None of the drawings in Binder 23 show such an area.

Response by Doug Morrell. We recommend that a physical security confinement area not be installed as part of the construction process. However, we recommend that a drawing be prepared that identifies the proposed location in the event that the need for a physical security confinement arises during operations. The proposed location would be in the South-East corner of the storage facility. Verbiage should be included in the Summary of Work section of the specification describing the need for allocation of space for the potential "future" confinement installation.

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3918
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Technical	
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 13, Section 1.5		

2. It is stated that post Stage II, the waste can be sorted into categories of less than or equal to 10 nCi/gram, > 10 but less than or equal to 100 nCi/gram, and > 100 nCi/gram. The current design and assay methodology does not provide adequate assurance that the less than or equal to 10 nCi/gram sort will be achieved. This sort (by category) is on a waste/soil container basis, not a population average.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3919
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Technical	
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 15, Section 1.6		

3. The bounding assumption that technology is currently available to provide adequate digface and material assays of materials excavated from Pit 9 is satisfactory for digface monitoring, but not a satisfactory assumption relative to material assay requirements. NDA assay technology is adequate for TRU waste, but not adequate to meet objectives for the large volume of soil. An alternate strategy for soil (examples submitted for the soil characterization trade study) should be incorporated into the design. Alternate technologies exist to accomplish project objectives.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3920
Document:	Binder I-A Stage II RD/RA Work Plan		
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 40, Section 6.1.1		

4. The performance standards provided for the removal of soil and waste, and the subsequent assay, cannot be met with NDA assay equipment that has an MDC of 40 nCi/gram (design specifications). This may be satisfactory for characterizing RFP waste, but not soil. The design process has postponed addressing this NDA assay deficiency/uncertainty hoping that NDA technology would catch up to the basic project requirements. Information is the main product of Stage II and characterization data is a major part of this "information" product. Nothing in the NDA "arena" has changed significantly during the past four years that would provide some level of comfort relative to the possibility of reliable assay at the 10 nCi/gram TRU level. The project must accept the fact that a single NDA assay methodology will not satisfy both waste and soil objectives. Appropriate changes (most likely to be derived from the soil characterization trade study) should be embraced in the design philosophy and incorporated into the design.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3921
Document:	Binder I-A Stage II RD/RA Work Plan		
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 43, Section 7.1		

5. It is not clear what is meant by "monitoring equipment" used to distinguish between soils with less than or equal to 10 nCi/gram TRU and those with > 10 nCi/gram. Is this the digface monitor or the assay equipment? It does not appear that the design currently embraces monitoring at the digface to assess soil TRU concentrations at these levels. It is a very worthwhile objective to have this capability and determine the usefulness of such monitoring during retrieval operations.

Response by Comment Processing CPT. As agreed to in the 10/2/00 Agency Face-to-Face Meeting, we recommend completing the Soils Trade Study within its current scope. [This is a consolidated response to comments 3921 (Binder I-A), 3933 (Binder II), 3934 (Binder III), 3960 (Binder XI-C), Binder 3962 (Binder XI-C), 3974 (Binder XVII), and 3988 (Binder I-A).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3922
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Technical	
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 44, Section 7.1.2		

6. It is stated in the text that current fine assay DQOs require only that measurements be made as current state-of-the-art instrumentation allows. This is an unsatisfactory statement for a DQO. Project objectives, TFRs and SRDs clearly state requirements, and the DQO process and design should embrace these requirements. If there is a problem with the objectives or requirements, then the project direction should be modified. The project has put all their "eggs" in one basket (i.e. NDA assay for all materials retrieved). It is not necessary to use a single methodology to meet objectives. Alternatives exist.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3923
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Rad Safety	
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 68, Section 8.4.3.1		

7. The MHC upper glovebox assembly provides an enclosed processing area where operators perform waste sizing and sampling using hand-held equipment and power tools. This approach was chosen to simplify operations and save on costs. However, extensive operations with power tools to size waste and drums in gloveboxes poses significant risk to workers. It is important that procedures, training and facility design mitigate these risks to workers to as low level as practicable. This is a major health and safety risk area.

Response by Comment Processing CPT. As agreed to in the 10/3/00 Agency Face-to-Face Meeting, no change to the design is required. This comment was provided as a caution. Any actions with regard to this comment would be addressed in the normal course of developing operating procedures and training.

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3924
Document:	Binder I-A Stage II RD/RA Work Plan		Category: Technical
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 78, Section 8.5.2		

8.** The text states that the DFM represents significant technical risk to the project. However, it is not clear why the DFM represents significant technical risks to the project. The principal objective is to assess the fissile material content of the buried waste. A DFM system will never be a quantitative tool for the fissile material content of buried waste. It is an indicator and semi quantitative at best. Too many variables exist to expect accurate quantitation of fissile gram content (while waste is buried). The DFM is used in conjunction with a retrieval strategy based on batch control to provide nuclear criticality safe operations.

Response by Jim Rose. For clarity we recommend that this document be changed to replace the term "technical risk" with "programmatic/schedule risk". We also agree with the reviewer that the DFM can provide only an estimate of fissile material present in the digface and, since it is a well-developed technology, using gamma spectrometry is not a high technical risk. However, the application of the technology to Pit 9 waste does provide some risk in terms of its effectiveness as a criticality control tool. Unknowns associated with the volume and density of the wastes to be measured and the effects of quantities of other radionuclides that are present do have an impact on the uncertainties associated with the measurements. After the DFM is procured and delivered bounding measurements/testing are planned to assure criticality safety criteria can be met.

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3925
Document:	Binder I-A Stage II RD/RA Work Plan		Category: Technical
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 84, Section 8.10		

9.** The digface monitor will not determine a gram equivalent Pu-239; it will provide an estimate of this value. This estimate (or bounding range) will be used to plan retrieval. Retrieval will be controlled and conducted in a batch mode. For the NDA of drums, achieving detection limits with state-of-the-art technology, with one methodology, is highly unlikely. The characterization of the waste should be separate from the characterization of the soil.

Response by Jim Rose. We recommend that this document be changed to reflect that the digface monitor will provide only an estimate of the Pu-239/fissile material present. Further, we agree that it is very difficult to obtain low detection limits with a single methodology using current detection methods, especially for wastes (as opposed to soils). However, it is been determined that gamma spectrometry provides the most information using a single technique. Characterization of either wastes or soils using the digface monitor is not currently in scope.

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3926
Document:	Binder I-A Stage II RD/RA Work Plan Category: Technical		
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 106, Section 13.3		

10. The use of digface monitoring equipment for "real-time" characterization of waste and soil is not fully explained in these design documents, nor are the operational procedures to minimize cross contamination explained. Will the germanium detectors provide a soil TRU nuclide assessment? If so, what are the design requirements?

Response by Jim Rose. This comment speaks to the subject of the currently on-going Soils Assay Trade Study. Hence, this comment is being evaluated as part of that study. Since digface characterization of soils and waste is not currently in-scope, a change request should be written to add a new requirement to the baseline as appropriate.

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3927
Document:	Binder II Process Definition and Data Needs Category: Technical		
Location:	DOE/ID-10731 Field Sampling Plan		
Comment:	Page 3-5, Section 3-1		

11. A number of DQO sections (particularly QS8 and QS9) pertain to the determination of TRU activity in soils. The assay of soils and the selection of appropriate methodology to achieve measurement objectives at 10 nCi/gram have not been adequately defined. Stating that the required detection level is "as achievable with current state of art" is not acceptable. As stated in previous comments pertaining to DQOs, FSP, design documents and assay system specifications, adequate methods are not specified to accomplish project objectives that pertain to the TRU assay of drums. Relative to the laboratory analysis of soil samples, the analytical method of choice should be gamma ray spectroscopy. Alpha spectroscopy should be used for confirmatory measurements and for a few specific nuclides not amenable to analysis by gamma spectroscopy. Gamma spectroscopy is a fast and nondestructive method that averages the content over a very large sample compared to alpha spectroscopy. The required detection level for alpha spectroscopy analysis of soils should be consistent with the method detection level (about 0.1 pCi/gram, see QAP Table 2-5).

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3928
Document:	Binder II Process Definition and Data Needs Category: Technical			
Location:	DOE/ID-10731 Field Sampling Plan			
Comment:	Page 4-10, Section 4.3.2.4			

12. About 1000 soil drums will require characterization. NDA assay is the current choice. However, achieving reliable detection at less than 10 nCi/gram TRU is not likely to be met. These drums should be characterized by an improved loading, sampling and sample analysis strategy that satisfies characterization objectives.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3929
Document:	Binder II Process Definition and Data Needs Category: Technical			
Location:	DOE/ID-10731 Field Sampling Plan			
Comment:	Page 4-10, Section 4.3.2.5			

13. This section discusses validating assay results. The current loading and sampling strategy will introduce a considerable uncertainty, and impact the correlation study. Improvement in the loading, sampling and sample analysis strategy will eliminate much of this uncertainty. In fact, the strategy will produce results more reliable than the NDA assay methodology (10 nCi/gram and below). For soil sample analyses, the gamma spectrometric is preferred for TRU characterization, with alpha spectrometric methods used to confirm or provide lower detection levels for specific nuclides.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3930
Document:	Binder II Process Definition and Data Needs Category: Technical		
Location:	DOE/ID-10731 Field Sampling Plan		
Comment:	Page 6-2, Section 6.2		

14.** It is important that digface monitoring identify "free" Am-241. This high specific activity waste form can impact operations if contamination is spread about. This is a much more significant concern than Pu-239 from a contamination control standpoint. The RFP packaging and stabilization of the Am-241 is important in mitigating this concern, as is handling at the digface and MHC.

Response by Comment Processing CPT. The current DFM addresses criticality monitoring requirements. If CR-170 adds digface characterization requirements, solutions such as the reviewer's should be considered for implementing the new requirements. We agree that Am-241 is a significant concern for contamination control; the existing design was developed to mitigate this concern. If CR-170 is implemented, Am-241 data would be available to assist day-to-day retrieval planning. [This is a consolidated response to comments 3930 (Binder II), 3947 (Binder VI), and 3980 (Binder XVIII-A).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3931
Document:	Binder II Process Definition and Data Needs Category: Technical		
Location:	DOE/ID-10731 Field Sampling Plan		
Comment:	Page 6-6, Section 6.3.2.1		

15. It is stated that the collected soil will be dumped into the drum. How will this dumping process be controlled to minimize dust release and assist representative filling? Will the auger sampler handle the range of sampling from soil fines to 2 inch diameter chunks?

Response by Comment Processing CPT. As agreed to in the 10/3/00 Agency Face-to-Face Meeting: (1) We recommend modifying the Field Sampling Plan to describe how dust is controlled during soil drum loading. (2) We recommend that sample representativeness be addressed during the Soils Trade Study, and that changes to RD/RAWP documents would be based on the trade study results via Change Request 170.

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3932
Document:	Binder II Process Definition and Data Needs Category: Technical		
Location:	DOE/ID-10731 Field Sampling Plan		
Comment:	Page 6-9, Section 6.5		

16. It is stated that the archive sample will be contained in a glass 250-ml bottle. To minimize handling and simplify TRU characterization, samples should be placed directly in containers that are consistent with the geometry requirements for gamma spectrometric TRU measurements. Use glass bottles to meet waste characterization requirements (organics, etc.), but use plastic containers for radionuclides measurements.

Response by Mark Borland. We recommend not pursuing the action proposed in the comment. The planned approach for sample analysis is the use the Analytical Laboratory department at INTEC of the INEEL. This lab will perform both radiological and chemical analysis. Using one sample container greatly simplifies sample processing including packaging, transportation handling, and data management. The proposed approach would essentially double the number of samples collected. If radiological analyses were to be performed at a different location than the chemical analyses, then the proposed change to sample containers would have technical merit.

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3933
Document:	Binder II Process Definition and Data Needs Category: Technical			
Location:	Review and Comments			
Comment:	General			

17. The resolution of a number of comments pertaining to sampling and analysis strategies was deferred to a trade study. The trade study was to consider various options necessary to meet soil segregation and characterization requirements. The trade study has not been completed. Important considerations were NDA assay of soil entering drums, automatic sample splitting between hopper and drum, and/or an improved loading and sampling strategy for soil drums. It is necessary to complete this trade study to finalize the design.

Response by Comment Processing CPT. As agreed to in the 10/2/00 Agency Face-to-Face Meeting, we recommend completing the Soils Trade Study within its current scope. [This is a consolidated response to comments 3921 (Binder I-A), 3933 (Binder II), 3934 (Binder III), 3960 (Binder XI-C), Binder 3962 (Binder XI-C), 3974 (Binder XVII), and 3988 (Binder I-A).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3934
Document:	Binder III Cmt Res- SII Prces/Defn & Env Category: Technical			
Location:	Docs			
Comment:	Comment Resolutions			
	General			

18. The resolution of a number of comments pertaining to digface monitoring, sampling and analysis strategies was deferred to a trade study. It is necessary to complete this trade study to finalize the design.

Response by Comment Processing CPT. As agreed to in the 10/2/00 Agency Face-to-Face Meeting, we recommend completing the Soils Trade Study within its current scope. [This is a consolidated response to comments 3921 (Binder I-A), 3933 (Binder II), 3934 (Binder III), 3960 (Binder XI-C), Binder 3962 (Binder XI-C), 3974 (Binder XVII), and 3988 (Binder I-A).]

EPA	Reviewer: Jim McHugh	Significant? No	Comment #	3935
Document:	Binder V Env/Saf/Q Docs Category: Technical			
Location:	DOE/ID-10790 Pollution Prevention/Waste Minimization Plan			
Comment:	Page 3-5, Section 3.2.1.1.2			

19. The gamma radiation detection monitor described here for the digface does not appear to be entirely consistent with the technical descriptions provided in the design documents for the digface monitoring equipment.

Response by Jim Rose. Since the write-up given in Section 3.2.1.1.2 can be misinterpreted, we recommend this section be re-written to be more consistent with the technical descriptions provided in other design documents.

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3936
Document:	Binder V Env/Saf/Q Docs	Category: Technical		
Location:	DOE/ID-10790 Pollution Prevention/Waste Minimization Plan			
Comment:	Page 3-13, Section 3.2.5			

20. The auger sampler should always be surveyed/swiped for radiological contamination, and the "cleanliness state" based on results of the survey. Visual observations are not satisfactory to determine the cleanliness of the sampling device.

Response by Brent Burton. We recommend that the language in this document be revised to ensure consistency with the language in section 6.3.3.3 of the FSP.

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3937
Document:	Binder V Env/Saf/Q Docs	Category: Technical		
Location:	DOE/ID-10790 Pollution Prevention/Waste Minimization Plan			
Comment:	Page 3-13, Section 3.2.6			

21. The ability of the proposed assay system to reliably determine waste/soil TRU content at 10 nCi/g has not been demonstrated. Since this is the case, the project should not be relying on the assay system to make TRU classification decisions for materials containing low concentrations of TRU (especially soils).

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3938
Document:	Binder V Env/Saf/Q Docs	Category: Editorial		
Location:	DOE/ID-10790 Pollution Prevention/Waste Minimization Plan			
Comment:	Page 3-14, Section 3.2.6			

22. The quantity defined as 200 nCi/g should read 200 grams fissile material. The repackaging is based on exceeding 200 grams of fissile equivalent material.

Response by Jim Rose. We recommend incorporating the proposed change. The quantity 200 nCi/g should be 200 grams.

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3939
Document:	Binder V Env/Saf/Q Docs	Category: Technical	
Location:	DOE/ID-10790 Pollution Prevention/Waste Minimization Plan		
Comment:	Page 3-15, Section 3.2.7.1		

23. The ability of the proposed assay system to reliably determined waste/soil TRU content at 10 nCi/g has not been demonstrated. Since this is the case, one should not be relying on the assay system to make TRU classification decisions for materials containing low concentrations of TRU (especially soils).

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3940
Document:	Binder V Env/Saf/Q Docs	Category: Rad Safety	
Location:	EDF-ER-168 Radiological Control		
Comment:	Page 1/RAE		

24. The Stage II document states that the ventilation system design for the RAE provides sufficient capacity and proper flow pattern to prevent the spread and build up of loose surface and airborne contamination. The nature of the operations and the digface monitoring, and the handling of high specific alpha activity materials are important considerations in this assessment. For example, handling breached waste containers containing "free" Am 241 pose significantly greater risk to spread of contamination than the other radionuclides in the waste. This also has significant implications regarding ALARA for retrieval operations and future decommissioning. Flexibility to control airflow patterns and capture materials at the source is an important design consideration. One may also need local/recirculation HEPA filters at the digface to capture materials during critical handling operations. Radiological Engineering must continually evaluate this aspect of the operation as it develops.

Response by Comment Processing CPT. As agreed to in the 10/2/00 Agency Face-to-Face Meeting, we recommend reviewing the design for its ability to accommodate the addition of local recirculation HEPA filtering at the digface. Necessary interfaces and capabilities should be identified. Any necessary design changes should be handled via the CR process.

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3941
Document:	Binder V Env/Saf/Q Docs	Category: Technical		
Location:	INEEL/EXT-2000-000690 Preliminary Criticality Safety Evaluation			
Comment:	Page 4, Table 1			

25. Table 1 lists maximum Pu content (single drum basis) for the waste types expected in the Stage II. These data are taken from the RFP shipping records. Many examples have been observed of RFP shipping records significantly underestimating Pu content. For example, the Kudera report shows an average 190 grams per drum for graphite materials, with a reasonable likelihood of encountering a drum of this waste with > 1 kg Pu. Using RFP shipping records to determine an upper bound to the Pu content of waste forms (especially from this waste disposal era) is misleading without a complete discussion of uncertainties.

Response by Todd Taylor. Because the potential for an overloaded drum exists, a means to identify the package must be used prior to disturbing the waste. The 1 kg value was developed based on NDA data obtained for above-ground waste and shipping data describing the waste types in the 40 x 40 area. It is recognized that the potential exists for greater than 1 kg quantities, but the result is the same: a digface monitor is required to identify unsafe masses. In the 10/2/00 Agency Face-to-Face Meeting it was agreed to hold a meeting to discuss and resolve criticality issues. We recommend this topic be part of the agenda for that meeting. [This is a consolidated response to comments 3941 (Binder V), 3942 (Binder V), and 3943 (Binder V).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3942
Document:	Binder V Env/Saf/Q Docs	Category: Technical		
Location:	INEEL/EXT-2000-000690 Preliminary Criticality Safety Evaluation			
Comment:	Page 5, Table 2			

26. The data cited in the text are the result of the INEEL NDA evaluation of post 1970 RFP waste drums. The waste disposal practices at the RFP changed considerably from the *50s to the *70s. Utilizing these recent data without discussion of the significant differences in waste handling practices prior to the *70s is misleading. Also, are the waste codes consistent between the *50s, 60*s and *70s? The waste code stated for the drum with a maximum measured fissile mass of 1,138 grams is code 393, not 376. This is a slag material type waste drum. This particular drum lists 81 pounds as the net weight of waste. Using the Pu maximum content value listed in the table, this equates to an average Pu concentration of 3.1 %. Also, this particular drum contains 60 % void space. These are important factors to be considered in a nuclear criticality safety evaluation of buried fissile waste material. Waste drums are not always filled to capacity, and the Pu is not uniformly distributed.

Response by Todd Taylor. Because the potential for an overloaded drum exists, a means to identify the package must be used prior to disturbing the waste. The 1 kg value was developed based on NDA data obtained for above-ground waste and shipping data describing the waste types in the 40 x 40 area. It is recognized that the potential exists for greater than 1 kg quantities, but the result is the same: a digface monitor is required to identify unsafe masses. In the 10/2/00 Agency Face-to-Face Meeting it was agreed to hold a meeting to discuss and resolve criticality issues. We recommend this topic be part of the agenda for that meeting. [This is a consolidated response to comments 3941 (Binder V), 3942 (Binder V), and 3943 (Binder V).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3943
Document:	Binder V Env/Saf/Q Docs		Category: Technical	
Location:	INEEL/EXT-2000-000690 Preliminary Criticality Safety Evaluation			
Comment:	Page 5, Section 2.1			

27. The probability of encountering an overloaded drum is most likely low based on the number of waste drums and the estimated total Pu content of the waste. Using just the RFP waste records, and post 1970 RFP waste and INEEL NDA data, to define upper bounds to the fissile material content of waste drums, does not adequately address a "worst case" scenario. One must consider the particular waste and project/estimate uncertainties in RFP waste records. Large uncertainties exist in the quantities of Pu in RFP waste, as can be seen by comparing the Table 2 fissile material value with the RFP declared value. Waste reduction, recovery and accountability methods improved over the years; therefore, waste drums in the '50s and '60s should be considered more suspect.

Response by Todd Taylor. Because the potential for an overloaded drum exists, a means to identify the package must be used prior to disturbing the waste. The 1 kg value was developed based on NDA data obtained for above-ground waste and shipping data describing the waste types in the 40 x 40 area. It is recognized that the potential exists for greater than 1 kg quantities, but the result is the same: a digface monitor is required to identify unsafe masses. In the 10/2/00 Agency Face-to-Face Meeting it was agreed to hold a meeting to discuss and resolve criticality issues. We recommend this topic be part of the agenda for that meeting. [This is a consolidated response to comments 3941 (Binder V), 3942 (Binder V), and 3943 (Binder V).]

EPA	Reviewer: Jim McHugh	Significant? No	Comment #	3944
Document:	Binder V Env/Saf/Q Docs		Category: Project Objectives	
Location:	INEEL/EXT-2000-000690 Preliminary Criticality Safety Evaluation			
Comment:	Page 6, Section 2.2.2			

28. This section infers considerable sampling at the digface. It is stated that samples of waste/material and soil will be collected for further analyses after the digface monitor has scanned the surface and Pu radiation levels are determined. Is this consistent with the Sampling and Analysis Plan?

Response by Mark Borland. We recommend incorporating the proposed change into the solution. The CSE is correct in stating samples will be collected from grid locations following digface monitor scanning. The inference that a sample will be collected from every grid location is incorrect and not intended. Only biased and random grid locations identified in the Field Sampling Plan will be sampled. We recommend revising the text of the Criticality Safety Evaluation to clarify the sampling approach consistent with the Field Sampling Plan.

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3945
Document:	Binder V Env/Saf/Q Docs	Category: Technical	
Location:	INEEL/EXT-99-00013 Preliminary Safety Assessment		
Comment:	Page 6-1, Section 6.3		

29. What is the justification that the frequency of encountering waste drums containing > 200 grams Pu is equal in the '50s, '60s and '70s waste disposal eras? Do the 17,000 drums represent this total time period? It is my understanding that these data represent more recent (i.e. 1970 and beyond) waste packages.

Response by Rod Peatross. We recommend a minor revision to the PSA to address the applicability of the post 70 data to buried waste.

EPA	Reviewer: Jim McHugh	Significant? No	Comment # 3946
Document:	Binder V Env/Saf/Q Docs	Category: Technical	
Location:	INEEL/EXT-99-00013 Preliminary Safety Assessment		
Comment:	Page 6-2, Section 6.3		

30. The digface fissile material monitor is described as a rectangular neutron detection assembly. The current design involves gamma ray spectroscopy and HPGe detectors. Also, it is stated that use of water in fighting fires is not a concern (i.e. criticality unlikely). Data from the INEEL NDA on the characterization of drums indicates a drum with 60 percent void space, > 1 kg Pu, and a Pu average concentration of 3.1% in the waste material. Has a partially filled drum with significant void space and large quantities of Pu been evaluated relative to water introduction and reflection? These are important factors to be considered in a nuclear criticality safety evaluation of buried fissile waste material and the retrieval of this material. Using averages can get one into trouble.

Response by Todd Taylor. The Criticality Safety Analysis has considered parameters such as mass, geometry, concentration, and moderation. Partially filled drums with void and significant amounts of Pu have been evaluated. Average fissile mass and concentration have not been used to bound potential criticality hazards. In the 10/2/00 Agency Face-to-Face Meeting it was agreed to hold a meeting to discuss and resolve criticality issues. We recommend that this topic be discussed at the meeting.

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3947
Document:	Binder VI Misc Docs	Category: Technical	
Location:	EDF-ER-175, MHC and DFM Characteristics and Capabil		
Comment:	Page 1, Summary		

31. It is concluded that gamma ray detection techniques using germanium detectors are the preferred approach to digface and MHC drum fill monitoring. No discussion is provided on the use of the germanium detectors for Am 241 monitoring. It is stated in other documents that the gamma monitoring will involve both high-energy and low-energy regions of the spectrum. Optimizing the digface monitor to evaluate soil content using the 60 keV Am 241 emission could save considerable effort characterizing overburden (use the standard in situ gamma spectroscopy methodology).

Response by Comment Processing CPT. The current DFM addresses criticality monitoring requirements. If CR-170 adds digface characterization requirements, solutions such as the reviewer's will be considered for implementing the new requirements. We agree that Am-241 is a significant concern for contamination control; the existing design was developed to mitigate this concern. If CR-170 is implemented, Am-241 data would be available to assist day-to-day retrieval planning. [This is a consolidated response to comments 3930 (Binder II), 3947 (Binder VI), and 3980 (Binder XVIII-A).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3948
Document:	Binder VI Misc Docs	Category: Technical	
Location:	EDF-ER-175, MHC and DFM Characteristics and Capabil		
Comment:	Page 3, Section 2.0		

32. Drum fill monitoring at the MHC uses 2 HPGe detectors to monitor a drum as it is being filled. The fixed location of the detectors and stationary drum result in large uncertainties relative to a segmented gamma scanner. A single germanium detector monitoring the waste (within the MHC) in small volume increments, prior to placing it in the drum, would provide a better estimate of drum fissile material loading. One could create a more favorable geometry involving a smaller volume compared to a total drum volume. This increased accuracy would eliminate the need for a segmented gamma scanner to provide the better estimate of loading. The assay system would provide the required accuracy for the fissile material content. Two detector systems in the MHC would replace the five or six detectors presently planned. The equipment savings could be directed toward the SHC, and provide monitoring during fill in a way that provides reliable soil characterization at 10 nCi/gram. [See also UCN # 3977.]

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3949
Document:	Binder VII-A O&M Plan & App A-F	Category: Rad Safety		
Location:	O&M Plan-678			
Comment:	Page 9, Section 3.5.1.11			

33. Generally it is not the radcon engineer that performs these duties. It is the radcon technician.

Response by Dave Everett. We recommend deleting the word "Engineer" and replacing it with the word "Technician" This action would result in properly identifying the group responsible for performing the described work activities.

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3950
Document:	Binder VII-B App G	Category: Quality		
Location:	O&M Plan-678, Appendix G, Training Plan			
Comment:	Page B1, Appendix B			

34. The experience requirements cited in the text for operators and technicians are weak for such a sensitive radiological undertaking. This may be a nonreactor nuclear facility, but the system concepts are new and radiological consequences are not trivial.

Response by Patricia Jurbala. We recommend not pursuing the action proposed in the comment because the minimum experience complies with DOE Order 5480.20A, "Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities". Stringent qualification requirements for personnel working in radiological control areas are found in PRD-183, "INEEL Radiological Control Manual", and fully comply with the requirements of 10 CFR 835. A complete program description is found in the INEEL Radiation Control Manual (e.g., Part 4).

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3951
Document:	Binder VII-D App P	Category: Technical		
Location:	O&M Plan-678, Appendix P, DOE/ID-107773, Operations Requirements Document (ORD)			
Comment:	Page 21, Section 3.1.5.2			

35. The statement that "a TRU constituent level of 10 nCi/gram for the population of drums to be returned to the pit has been identified" is not consistent with TSRs, SRDs and statements made in numerous sections of the RD/RA Work Plan.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3952
Document:	Binder XI-B SDD-21 ERS	Category: Technical	
Location:	SDD-21, INEEL/EXT-2000-00259, Stage II, ERS - SDD		
Comment:	Page 17, Section 3.1.2.4.2		

36. The strategy of sizing items at the digface needs to be discussed in more detail. The sizing of waste forms at the digface must be minimized to avoid cross contamination and release of contaminants to the environs. Why would one want to cut up intact, lined, standard 55-gallon drums? Does the project intend to perform such an operation at the digface? At one time, the use of overpack containers was discussed. What are the current plans for overpacks?

Response by Daryl Lopez. We recommend incorporating the proposed change into the solution. Each intact drum from the digface will actually be placed in an ITM and transferred to the MHC for disposition. Reference to intact drum cutting would be removed from Section 3.1.2.4.2. Sizing at the digface will only be done if an item cannot fit into an ITM or through the MHC door. The MLA can handle 83-gal overpack drums and scan them, but the final assay station may not be able to handle them, depending on the assay station subcontractor.

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3953
Document:	Binder XI-C SDDs	Category: Technical	
Location:	SDD-22, INEEL/EXT-2000-00260, Stage II, MHC - SDD		
Comment:	Page 35, Section 4.1.1.1.1.5		

37. This section states that electrical power connections are provided for sizing and characterization equipment. Provision should also be made to provide electrical connections to hand-held detectors for characterization flexibility within the MHC glovebox. These would be signal/high-voltage feed-thru for various detector types (a standard feed-through will handle most common detectors).

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting: We recommend reviewing the design (including DAMS) for its ability to accommodate portable instruments, and revising the RD/RAWP package as needed to accommodate them. We also recommend addressing contingent operations for use portable instruments in the Phase II O&M Plan. If it is determined later that portable instruments are distinctive to the retrieval process we recommend further evaluation of the design and incorporation of any needed changes. [This is a consolidated response to comments 3953 (Binder XI-C), 4033 (Binder XI-E) and 4034 (Binder XI-E).]

EPA	Reviewer: Jim McHugh	Significant? No	Comment # 3954
Document:	Binder XI-C SDDs	Category: Editorial	
Location:	SDD-22, INEEL/EXT-2000-00260, Stage II, MHC - SDD		
Comment:	Page 96, Appendices		

38. No references are provided to location of these appendices.

Response by James Case for Carol Reid. We recommend addition of further explanation of the absence of the Appendices. The Appendices are included in the SDDs as a placeholder per the format dictated by MCP-3572.

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3955
Document:	Binder XI-C SDDs	Category:	Technical	
Location:	SDD-23, INEEL/EXT-2000-00261, Stage II, SS - SDD			
Comment:	Page 8, Section 3.1.1.2			

39. The statement "a TRU constituent level of 10 nCi/gram for the population of drums to be returned to the pit has been identified" is not correct. Returning drums to the pit is based on the characterization of single drum contents; the decision to return is based on these single drum results, not a population average. The NDA assay methodology to accomplish this requirement has not been demonstrated, and may remain a major technical obstacle. NDA assay for waste is acceptable using best available technology; however, utilizing NDA assay for soil is not acceptable (without a NDA assay demonstrated capability). This major volume of material should be characterized by an alternative method (suggestions presented in other comments). [See also UCN # 3957.]

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (.RC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3956
Document:	Binder XI-C SDDs	Category: Technical	
Location:	SDD-23, INEEL/EXT-2000-00261, Stage II, SS - SDD		
Comment:	Page 10, Section 3.1.2		

40. The proposed mobile assay unit will not be able to directly evaluate all the radionuclides mentioned in this section. The measurement uncertainty and MDC are not consistent with the reliable segregation of drums at 10 nCi/gram. Is the MDC specified for each radionuclide, or is it specified for total TRU? What is the required confidence level associated with the MDC? The DRDs that are referenced are not consistent with TFRs and SRDs. A design requirement document (or changes to DRDs) need to meet established base requirements. As the design proceeds, there should be no "retrofitting" of the design requirements to meet what is convenient.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3957
Document:	Binder XI-C SDDs	Category: Technical	
Location:	SDD-23, INEEL/EXT-2000-00261, Stage II, SS - SDD		
Comment:	Page 22, Section 4.1.1.5		

41. The NDA assay methodology is satisfactory for characterizing RFP waste materials. However, based on expected performance, alternatives should be employed for soil characterization. Soil represents a large volume of material that will be less than or equal to 10 nCi/gram. Applying a 100 nCi /gram tool to characterize soil is unrealistic considering project objectives. Realistic alternatives exist and these must be embraced in the design. [See also UCN # 3955.]

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3958
Document:	Binder XI-C SDDs	Category: Technical	
Location:	SDD-24, INEEL/EXT-2000-00262, Stage II, CIS - SDD		
Comment:	Page 25, Section 4.1.1		

42. It is stated in the text that the DFM must be able to distinguish between 60 keV gamma rays emitted from Am 241, and other high-energy gamma rays, as the it is deployed by the ROCS. This capability is desirable; however, it is not clearly stated in other DFM design documents. The purpose, operation, and data output of the DFM needs to be clearly defined and consistent throughout all design documents.

Response by James Case. We recommend that documentation be clarified as proposed.

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3959
Document:	Binder XI-C SDDs	Category: Technical	
Location:	SDD-24, INEEL/EXT-2000-00262, Stage II, CIS - SDD		
Comment:	Page 30, Section 3.1.2		

43. As stated in Section 3.1.1, the MHC fissile monitoring subsystem is designed to ensure, within a 95 percent confidence level, that drums filled with excavated waste from pit 9 do not contain more than 200 grams of weapons-grade plutonium before the drums are removed from the MLA. If this is the case, why is an independent drum monitoring station required?

Response by James Case. We recommend clarifying the document according to the following explanation: Section 3.1.1 of the CIS SDD does in fact state that the MHC fissile monitoring subsystem will ensure within a 95% confidence level that filled drums do not contain more than 200 grams of weapons-grade plutonium; however, the fissile monitoring subsystem also includes the Independent Drum Monitoring Station. The fill monitors at the MLA are designed to provide an estimate only. The Independent Drum Monitoring Station will provide a 95% confidence measurement.

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3960
Document:	Binder XI-C SDDs	Category: Technical	
Location:	SDD-26, INEEL/EXT-2000-00267, Stage II, SHC - SDD		
Comment:	Page 9, Section 3.1.2.2		

44. The soil handling center (SHC) provides sampling consistent with the current FSP. Soil sampling is the method most likely to satisfy the soil characterization objective at 10 nCi/gram (i.e. not NDA assay). Therefore, it is necessary to modify the FSP and ensure that the loading and sampling strategy for soil drums provides for reliable characterization of the drum contents. A grinder/homogenizer and distributor in series with the hopper to drum path, and additional core sampling of a drum (collecting 1.5 to 2.0 kg of soil), will provide adequate assurance of representative sampling for this large volume of material. Gamma spectroscopy analysis of three core samples from each drum is a fast and reliable NDA method. This will ensure that requirement for characterizing and segregating drums to less than or equal to 10 nCi/gram can be achieved. [See also UCN # 3962.]

Response by Comment Processing CPT. As agreed to in the 10/2/00 Agency Face-to-Face Meeting, we recommend completing the Soils Trade Study within its current scope. [This is a consolidated response to comments 3921 (Binder I-A), 3933 (Binder II), 3934 (Binder III), 3960 (Binder XI-C), Binder 3962 (Binder XI-C), 3974 (Binder XVII), and 3988 (Binder I-A).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3961
Document:	Binder XI-C SDDs			
Location:	SDD-26, INEEL/EXT-2000-00267, Stage II, SHC - SDD			
Comment:	Page 28, Section 4.1.1.1.1			

45. The cartridge filters are rated as high-efficiency filters. The integrity of these filters must be maintained through out the operation to avoid contamination of the vacuum pump and adding airborne contamination to the RAE. What methods are employed to ensure these objectives are met? [See also UCN # 3975]

Response by Bob Carpenedo. We recommend further evaluation of a control method to shut down the vacuum based on filter status. The design, as submitted, provides for detection of blocked filters. The proposed action on detection of filter failure would be to shut the vacuum system off.

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3962
Document:	Binder XI-C SDDs			
Location:	SDD-26, INEEL/EXT-2000-00267, Stage II, SHC - SDD			
Comment:	Page 61, Section 4.1.4.1			

46. Since the requirements of the SVS are to handle 2 in. diameter clumps/rocks, the auger sampler must deal with this "granularity" in the container. Will the auger sampler push the clump aside, or grinder it up? If it pushes it aside, it is not handling all materials in a representative way. This supports the need for a grinder/homogenizer for soil entering a drum.

Response by Comment Processing CPT. As agreed to in the 10/2/00 Agency Face-to-Face Meeting, we recommend completing the Soils Trade Study within its current scope. [This is a consolidated response to comments 3921 (Binder I-A), 3933 (Binder II), 3934 (Binder III), 3960 (Binder XI-C), Binder 3962 (Binder XI-C), 3974 (Binder XVII), and 3988 (Binder I-A).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3963
Document:	Binder XI-C SDDs			
Location:	SDD-26, INEEL/EXT-2000-00267, Stage II, SHC - SDD			
Comment:	Page 89, Section 4.4.2.9			

47. It is stated in the text that humidity controls are not installed to regulate humidity within glovebox systems. Without humidity control, a problem can develop on very dry days (e.g. wintertime conditions) with finely divided particles and static electricity charges. Such conditions can disburse contamination within the enclosure and increase cleanup operations.

Response by Comment Processing CPT. As discussed in the 10/3/00 Agency Face-to-Face Meeting, we recommend performing a survey of other facilities to see if they implement humidity controls in gloveboxes. The results of the survey would be documented in an EDF. Follow-on action would depend on the outcome of the survey.

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EPA	Reviewer: Jim McHugh	Significant? No	Comment # 3964
Document:	Binder XI-C SDDs	Category: Editorial	
Location:	SDD-26, INEEL/EXT-2000-00267, Stage II, SHC - SDD		
Comment:	Page 102, Appendices		

48. No references are provided to locate the Appendices.

Response by James Case for Carol Reid. We recommend addition of further explanation of the absence of the Appendices. The Appendices are included in the SDDs as a placeholder per the format dictated by MCP-3572.

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3965
Document:	Binder XIX Storage Part II	Category: Technical	
Location:	EDF-ER-054, Stage II, Non-Destructive Assay System Capabilities EDF		
Comment:	Page 3, Table		

49. The MDCs quoted by the vendors do not meet, or are very optimistic relative to, soil assay objectives. The project must be very careful in using these data to justify the assay methodology for soil characterization.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3966
Document:	Binder XIX Storage Part II		Category: Technical	
Location:	EDF-ER-129, INEEL/EXT-2000-00044, Stage II, Avg Conc Vs. Measured Cutoff Conc for Assay Ops			
Comment:	Page 1, Summary			

50. This assessment for shallow land burial of waste is based on the assumed overall requirement that the average transuranic concentration of the waste/soil must not exceed 10 nCi/gram at the 95 percent confidence level. This assumption is not correct, and should not be applied to an ensemble of waste/soil packages, or applied to an in situ disposal area situation. The volume to be characterized is an individual package (55-gallon drum). The requirement applies to the individual drum, not the collection of drums or large waste volumes. This fact is defined in project requirements. The assay system is not intended to be a screening tool, but intended to provide reliable characterization data on each individual drum, such that the segregation objectives of less than or equal to 10 nCi/gram, 10 to 100 nCi/gram, and > 100 nCi/gram can be met. If these objectives cannot be met with the proposed assay system, an alternative methodology needs to be employed (especially for soil, which presents the greatest volume of material).

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3938 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3967
Document:	Binder XIX Storage Part II		Category: Technical	
Location:	EDF-ER-129, INEEL/EXT-2000-00044, Stage II, Avg Conc Vs. Measured Cutoff Conc for Assay Ops			
Page 10, Section 6.0				

Comment:

51. Using a criterion that the average TRU meets a particular value for a large volume of waste/soil is not consistent with accepted practice. If one takes the concept of averaging literally, it means one can bury/return to the pit anything as long as the average is satisfied. Taking this a step further, one could simplify the overall Pit 9 operation by removing only waste containers and leaving all soil behind (or return soil without analysis). This soil volume could contain about 2 kg of Pu and still satisfy the less than 10 nCi/gram criterion. One only needs a retrieval process that recovers waste items; this should guarantee that > 90 percent of the Pu has been recovered. Soil characterization would not be necessary because the Pu is associated with waste materials and one could statistically show the average has been satisfied. This is an example of how far one can take the concept of averaging.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3968
Document:	Binder XIX Storage Part II	Category: Technical	
Location:	EDF-ER-129, INEEL/EXT-2000-00044, Stage II, Avg Conc Vs. Measured Cutoff Conc for Assay Ops		
	Page 10, Section 6.0		

Comment:

52. Accepted characterization methodologies do not require assumptions relative to the expected distribution of excavated soil. Screening a large number of soil drums with the proposed assay tool is a poor use of time and money, and provides no useful characterization data. One can easily characterize a soil drum to less than 1 nCi/gram TRU by modifying drum loading and sampling strategies. This methodology should be embraced for soil characterization and return-to-pit decisions. As stated in this summary section, the conclusions relate to the expected use of the assay system as a screening method, not a characterization method. Individual drum characterization requires the MDC be less than 10 nCi/gram TRU. The drum assay requirements for soil, or alternate methodology, must demonstrate a 3 nCi/gram TRU MDC at 95 percent confidence level to provide reliable quantitation results for drum segregation at 10 nCi/gram. The assay system is not intended to be a screening tool; it provides an important characterization function for TRU concentrations near 100 nCi/gram.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3969
Document:	Binder XIX Storage Part II	Category: Technical		
Location:	SPC-245, Stage II -- Nondestructive Assay Service			
Comment:	Page 1, Section 1.0			

53. The mobile characterization services for nondestructive assay specify a 55 gallon drum container. Does this mean that drum over packs will not be used? There were discussions in the past that the assay system be capable of handling over packs. What is the justification for this change, and how much additional sizing and handling of drums will be required? Where will this sizing take place (at the digface or MHC)? The desire should be to minimize waste sizing at the digface.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

EPA	Reviewer: Jim McHugh	Significant? No	Comment #	3970
Document:	Binder XIX Storage Part II	Category: Technical		
Location:	SPC-245, Stage II -- Nondestructive Assay Service			
Comment:	Page 2, Section 1.2.1			

54. The maximum weight of waste/soil containers is listed as 800 pounds. In other documents, a quantity of 700 pounds was used for containers. There appears to be a lack consistency.

Response by Doug Morrell. The 800 pound specification flows from Design Requirements Document (DRD) Volume 7 (see Binder IV-B), section 3.7.4.12. The 800 pounds was specified in the DRD to provide a capacity margin.

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3971
Document:	Binder XIX Storage Part II	Category: Technical		
Location:	SPC-245, Stage II -- Nondestructive Assay Service			
Comment:	Page 2, Section 1.3			

55. The system requirements as defined in this section are satisfactory for waste materials, but not satisfactory for soil. The specified measurement uncertainty and MDC are not consistent with segregating drums containing less than or equal to 10 nCi/gram TRU per drum. Also, the throughput rate should be defined at the required MDC.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3972
Document:	Binder XIX Storage Part II	Category: Technical		
Location:	SPC-245, Stage II -- Nondestructive Assay Service			
Comment:	Page 9, Section 3.3.4			

56. The requirement that the assay report contain only those radionuclides that contribute 95 percent of a total activity is not a useful requirement for this project. For example, a situation could exist where the container contains one gram of "free" Am 241, 10 grams Pu 239 and 100 grams U 235. The total activity would be dominated by the Am 241, and that may be the only radionuclide listed in the assay report (using this specification requirement).

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3973
Document:	Binder XVI-C MHC	Category: Technical	
Location:	EDF-ER-139, Stage II Material Handling Process Confinement-Design Option Trade Study		
Comment:	Page 1/Summary		

57. This trade study selected "the small manual concept" as the preferred alternative. The current design concept does not appear consistent with this alternative. What trade study or other mechanism moved the design to its current configuration?

Response by Mark Borland. We recommend not pursuing the action implied in the comment. The design is consistent with the trade study description for the small manual concept. The features described for the small manual concept in Section 4.4 of EDF-ER-139 include: 1) a single room for all work activities, 2) direct loading from the digface (no transfer tunnel), 3) one 55-gal and one 85-gal drum port, 4) overhead hoist, gloveports and manipulator for work efforts. The cost estimate for the small manual concept (Appendix C of EDF-ER-139) is based on a 15 inches long by 6 inches high by 5 inches wide cell with an overhead crane, z-mast manipulator, and 12 windows with gloveports. The features and size of the Title-II glovebox design as well as internal equipment are consistent with these descriptions.

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3974
Document:	Binder XVII SHC	Category: Technical	
Location:	Appendix A to Specification SPC-151, Stage II, SHC, Soil Vacuum System Requirements		
Comment:	Page A31/5.2		

58. To improve characterization and representative sampling, a soil grinder and distributor should be considered to reduce large chunks and distribute soil more uniformly in the drum. The system could be designed to minimize dust generation in the loading operation.

Response by Comment Processing CPT. As agreed to in the 10/2/00 Agency Face-to-Face Meeting, we recommend completing the Soils Trade Study within its current scope. [This is a consolidated response to comments 3921 (Binder I-A), 3933 (Binder II), 3934 (Binder III), 3960 (Binder XI-C), Binder 3962 (Binder XI-C), 3974 (Binder XVII), and 3988 (Binder I-A).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3975
Document:	Binder XVII SHC	Category: Technical	
Location:	Appendix A to Specification SPC-151, Stage II, SHC, Soil Vacuum System Requirements		
Comment:	Page A38/5.4.1.1.3		

59. Failure of the filter could introduce contamination to the vacuum pump and the RAE. How will the system detect a filter failure? Will there be a second line of defense to mitigate such a failure? [See also UCN # 3961]

Response by Bob Carpenedo. We recommend further evaluation of a control method to shut down the vacuum based on filter status. Currently there is no means of detecting filter failure (loss of pressure). The vacuum goes into a bypass mode on blockage of the filter (high delta pressure). The design would not include a second line of defense for such a failure. See also response to comment #3961.

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3976
Document:	Binder XVIII-A CIS	Category: Technical	
Location:	EDF-ER-144 Electrical Cooling vs. Liquid Nitrogen		
Comment:	Page 4		

60. The decision to utilize electrically cooled digface monitor detectors did not properly weigh the advantages and disadvantages. This decision should be re-evaluated with more careful attention to the liabilities that can impact project objectives. The concern for internal contamination of the liquid nitrogen cooled detector shows a lack of understanding relative to filling, detector cooling and the impact of contamination. In addition to reliability, the compressor system can present a much more significant problem. The digface monitor may have to operate at more than 10 degrees off level. This restriction posed by the compressors is not consistent with the flexibility needed at the digface. The cooling decision must be re-evaluated and a more comprehensive view of the overall situation considered. The operation of more electrical equipment at the digface, using air cooling fans, is a major detriment. [See also UCN # 3978.]

Response by Comment Processing CPT. We recommend performing a study to evaluate changing DFM cooling to liquid nitrogen, followed by modifying the design if appropriate. [This is a consolidated response to comments 3976 (Binder XVIII-A) and 3978 (Binder XVIII-A).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3977
Document:	Binder XVIII-A CIS	Category: Technical	
Location:	EDF-ER-175 MHC and DFM Charact. and Capabilities		
Comment:	Page 1/ Summary		

61. Comments on the material presented in this EDF would be identical to the comments provided for same EDF contained in Binder VI. [Cross ref. With UCN # 3948.] [32. Drum fill monitoring at the MHC uses 2 HPGe detectors to monitor a drum as it is being filled. The fixed location of the detectors and stationary drum result in large uncertainties relative to a segmented gamma scanner. A single germanium detector monitoring the waste (within the MHC) in small volume increments, prior to placing it in the drum, would provide a better estimate of drum fissile material loading. One could create a more favorable geometry involving a smaller volume compared to a total drum volume. This increased accuracy would eliminate the need for a segmented gamma scanner to provide the better estimate of loading. The assay system would provide the required accuracy for the fissile material content. Two detector systems in the MHC would replace the five or six detectors presently planned. The equipment savings could be directed toward the SHC, and provide monitoring during fill in a way that provides reliable soil characterization at 10 nCi/gram.]

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3978
Document:	Binder XVIII-A CIS	Category: Technical	
Location:	SPC-271 Digface Fissile Monitor		
Comment:	Page 11, Section 5.1		

62. A stated design restriction is that the DFM shall use electrically cooled germanium detectors in its design. There are a number of advantages to using liquid nitrogen and a number of concerns with electric cooling. A number of the issues were brought out in the trade study. Operating cooling fans, compressors, etc. will introduce a number of complications at the digface that can impact the operation and contamination control. The concern with introducing contamination to the liquid nitrogen system is much overstated. A larger concern exists with the air flow caused by the fans and the buildup of contamination on the HEPA filter near the detectors. Other concerns also exist, and this requirement should be evaluated in more depth. [See also # 3976.]

Response by Comment Processing CPT. We recommend performing a study to evaluate changing DFM cooling to liquid nitrogen, followed by modifying the design if appropriate. [This is a consolidated response to comments 3976 (Binder XVIII-A) and 3978 (Binder XVIII-A).]

EPA	Reviewer: Jim McHugh	Significant? No	Comment # 3979
Document:	Binder XVIII-A CIS	Category: Technical	
Location:	SPC-271 Digface Fissile Monitor		
Comment:	Page 18, Section 5.2.6.2		

63. Energy calibration prior to every use is not the conventional practice. The calibration is verified with an energy check source; if the calibration is within the required tolerance, the system is not re-calibrated. Also, during this check process, the detector efficiency should be verified. During routine use there are a number of self checks (i.e. shifts or broadening of known gamma lines) to ensure the energy calibration is maintained.

Response by Jim Rose. We recommend correcting SPC-271, Section 5.2.6.2 to change "Detector calibration will be required ..." to "Verification of detector calibration will be required ...".

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3980
Document:	Binder XVIII-A CIS	Category: Technical		
Location:	SPC-271 Digface Fissile Monitor			
Comment:	Page 19, Section 5.2.7.3			

64. Since the gamma ray spectroscopy system will provide data on gamma emitters from 50 keV and above, one should ensure that the vendor provides an in situ gamma spectroscopy software package (with calibration factors established for various heights above the surface). It should provide for the standard gamma spectroscopy identification and quantitation of nuclides uniformly distributed in a soil volume. Since one cannot predict all the useful information alternatives, this capability is extremely valuable for assessing/measuring soil radionuclide concentrations. It could possibly decrease soil sampling/analysis requirements.

Response by Comment Processing CPT. The current DFM addresses criticality monitoring requirements. If CR-170 adds digface characterization requirements, solutions such as the reviewer's will be considered for implementing the new requirements. We agree that Am-241 is a significant concern for contamination control; the existing design was developed to mitigate this concern. If CR-170 is implemented, Am-241 data would be available to assist day-to-day retrieval planning. [This is a consolidated response to comments 3930 (Binder II), 3947 (Binder VI), and 3980 (Binder XVIII-A).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	3981
Document:	Binder XVIII-A CIS	Category: Technical		
Location:	SPC-272 MHC and SHC Monitor Systems			
Comment:	Page 1, Section 1.1			

65. U 235 may not be a significant safety issue for Pit 9, but it is a significant fissile nuclide that all fissile-monitoring systems should measure. A requirement should also exist to measure the U 235 content of waste drums.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3982
Document:	Binder XVIII-A CIS	Category: Technical	
Location:	SPC-272 MHC and SHC Monitor Systems		
Comment:	Page 13, Section 5.2.1		

66. Drum fill monitoring at the MHC uses 2 HPGe detectors (total of 4 at two stations) to monitor the drum that is being filled. The fixed location of the detectors and a stationary drum result in large uncertainties relative to a segmented gamma scanner system. A single germanium detector monitoring the waste (within the MHC) in small volume increments, prior to placing it in the drum, would provide a better estimate of drum fissile material loading. One could create a more favorable geometry involving a smaller volume compared to a total drum volume. This increased accuracy would eliminate the need for a segmented gamma scanner (DMS, section 5.2.2) to provide the better estimate of loading. The assay system would provide the required accuracy for the fissile material content. Two detector systems in the MHC would replace the five or six detectors presently planned. The equipment savings could be directed toward the SHC, and provide monitoring during fill in a way that provides reliable soil characterization at 10 nCi/gram.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3983
Document:	Binder XXVI Project Management Docs	Category: Technical	
Location:	PLN-417, Risk Management Plan		
Comment:	Page A, Appendix A		

67. Item No. 7 identifies that not meeting the 10 nCi/gram segregation criteria is a major risk to the project. This is an open item listed as of September 1998. This item is still open and the 90% design does not provide satisfactory alternatives to overcome this deficiency.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

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EPA	Reviewer: Jim McHugh	Significant? Yes	Comment # 3984
Document:	Binder XXIV Cost and Schedule	Category: Project Objectives	
Location:	Stage II Title II 90% Cost Estimate		
Comment:	Page 76/Samples and Analysis		

68. The cost estimate for samples and analysis, and the total sampling cost (\$7, 500,000) is very high. It is very important to choose those strategies that meet objectives and minimize costs. A number of strategies chosen in the FSP are not consistent with minimizing costs. A breakdown of costs is necessary to further evaluate the estimate.

Response by Comment Processing CPT. As agreed to in the 10/3/00 Agency Face-to-Face Meeting, we recommend that reevaluation of the costs and revision of the Field Sampling Plan be contingent upon implementation of CR-170.

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 3985
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental	
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 12, Section 1.4		

213. Identify the reference (i.e., DOE Order or Directive) for classifying wastes as "orphan"

Response by Brent Burton. We recommend deleting the orphan waste definition presented in the document. Instead of using this term, it is recommended that the corresponding TRU concentration values be presented (i.e., material > 10 nCi/g TRU < 100 nCi/g TRU). References/information explaining the concept of orphan waste can be provided if requested (e.g., DOE 435.1, RRWAC, TRU WAC).

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 3986
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental	
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 19, Table 3		

214. There appears no correlation between the planned dates listed in Table 3 and the Working Schedule in Binder XXIV. For example line 219 has the draft RA Report being submitted to the Agencies approximately 7 years after the June 2000 submittal of the 90% RD/RAWP, rather than on April 30, 2000.

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting, DOE has submitted a request for extension (see EM-ER-188-00). This issue is under review by the three Agencies. [This is a consolidated response to comments 3113 (Binder I-A), 3165 (Binder XXIV), 3986 (Binder I-A), 3998 (Binder I-A), and 4040 (Binder XXIV).]

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EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 3987
Document:	Binder I-A Stage II RD/RA Work Plan		Category: Rad Safety
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 61, Section 8.4.1.6		

215. It is unclear whether steps are provided to lock-out the potential introduction of water into the retrieval pit from the hoses if the Dig Face Monitor or other data sources indicate that high concentrations of fissile material may be present.

Response by Todd Taylor. The design does not provide automatic lockout against the introduction of water into the retrieval pit when the Digface Monitor indicates high concentrations of fissile material. In the 10/2/00 Agency Face-to-Face Meeting it was agreed to hold a meeting to discuss and resolve criticality issues. We recommend that this topic be discussed at the meeting.

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 3988
Document:	Binder I-A Stage II RD/RA Work Plan		Category: Environmental
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 73, Section 8.4.4.3		

216. It should be noted that the SHC a trade study is ongoing to determine if the SHC will need to be outfitted with additional sample access capability.

Response by Comment Processing CPT. As agreed to in the 10/2/00 Agency Face-to-Face Meeting, we recommend completing the Soils Trade Study within its current scope. [This is a consolidated response to comments 3921 (Binder I-A), 3933 (Binder II), 3934 (Binder III), 3960 (Binder XI-C), Binder 3962 (Binder XI-C), 3974 (Binder XVII), and 3988 (Binder I-A).]

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 3989
Document:	Binder I-A Stage II RD/RA Work Plan		Category: Environmental
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 76, Section 8.5		

217.** It should be clear that any Statement of Work issued by INEEL or its contractor must be in accordance with the design and operating requirements specified in the Agencies' approved Stage II RD/RAWP.

Response by Dave Wilkins. We recommend adding language in the work plan to make it clear that procurement subcontracts will be in compliance with the Agency approved Stage II RD/RA Work Plan.

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EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 3990
Document:	Binder I-A Stage II RD/RA Work Plan		Category: Environmental
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 85, Section 8.10		

218. What modeling is anticipated to predict whether a fire/explosion would occur from driving sheet or H-piles? If the modeling could affect the RD/RAWP requirements, how will this be addressed?

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting: An underground fire and/or explosion initiated by shoring pile installation is addressed in Appendix A to USQ Safety Evaluation No. SE-RWMC-99-039. (A copy was provided to the Agencies on 10/9/00.) We recommend adding this USQ to the RD/RAWP package. We also recommend providing additional detail on modeling to be performed, plans for cold testing, and measures planned during installation. Further, we recommend modifying the piling specification to indicate that the Project will provide direction (e.g. driving rates) for piling installation. We do not anticipate the need for design changes, but realize that procedures might have to be updated. [This is a consolidated response to comments 3130 (Binder V), 3163 (Binder XXIV), 3166 (Binder XXIV), 3211 (Binder I-A), and 3990 (Binder I-A).]

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 3991
Document:	Binder I-A Stage II RD/RA Work Plan		Category: Environmental
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 102, Section 13		

219. Given that the Stage II retrieval process allows for discrete removal of wastes rather than homogenization and given that soils, empty drums, and various drumme^d wastes will be retrieved, the discussion on hazardous waste determination needs clarification. For wastes being shipped outside the AOC, a hazardous waste determination is required to move wastes into a TSDF.. However, for managing wastes within the AOC, waste characterization for safe management is required, which is not the same as a hazardous waste determination.

Response by Brent Burton. We recommend taking under consideration the collection of data sufficient to support a complete hazardous waste determination during Stage II. The scope and impact of the changes would be defined and evaluated via Change Requests. Current characterization is aimed at satisfying Stage II objectives, including characterization for safe storage. This approach is consistent with an interpretation that a complete HWD is not needed for storage but would be needed if wastes or soils were sent off site or for disposal. Regarding proper management, note that all Pit 9 derived wastes will be managed in compliance with Subpart I of 40 CFR 264 while in CERCLA storage whether characterized as hazardous waste or not (as best management practice per Agency request - see page 19 of EDF-ER-071, 3rd paragraph). [This is a consolidated response to comments 3106 (Binder I-A), 3107 (Binder I-A), 3116 (Binder II), 3118 (Binder II), 3901 (Binder V), and 3991 (Binder I-A).]

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 3992
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental	
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 105, Section 13.3		

220. What does the term "managed as listed waste" mean in the context of this CERCLA action? Not all wastes (in addition to graphite) and soil retrieved from Stage II will qualify as listed waste or contained in.

Response by Brent Burton. We recommend that no change to the document be made in response to the comment. It is not agreed that "waste" forms, other than graphite, are appropriately managed without assignment of listed waste codes. Available process knowledge information indicates that, other than graphite, the expected waste forms in the Stage II baseline area are associated with listed waste codes.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 3993
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental	
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 115, Table 10		

221. It is not clear the basis for a 20% contingency on the Design and construction costs when the design is at 90% completion. It also appears that the cost estimate includes sunk cost, which would appear unnecessary.

Response by Dave Wilkins. We recommend clarifying the estimate and basis for estimate. Rationale: It is unclear to the reader why and how the contingency and expended cost are accounted for within the cost estimate.

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 3994
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental	
Location:	PLN-679 RD/RA Workplan, Appendix B, EDF-ER-151, Document Hierarchy and Deliverables Diagram		
Comment:			

222. Given that the working schedule suggests that 1 1/2 yrs will be required to perform the retrieval operations, the O&M Plan Phase III will likely undergo change during Operations Activities. This should be reflected on the diagram.

Response by Dave Wilkins. We recommend revising the diagram to indicate allowance of O&M activities to be adjusted as we learn. Rationale: Operations and Maintenance activities will evolve as the project progresses.

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EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 3995
Document:	Binder I-A Stage II RD/RA Work Plan Category: Environmental		
Location:	PLN-679 RD/RA Workplan, Appendix B, EDF-ER-151, Document Hierarchy and Deliverables		
Comment:	Page 10, EDF		

223. The O&M Plan Phase IV is actually the O&M procedures for post retrieval operations that include storage operations and retrieval facility standby.

Response by Jeff Bryan. Concur, it's actually both. For clarification, the final operations procedures are planned to be provided as input to the RA Report as well as the proposed O&M procedures for post-retrieval operations (e.g., storage operations and facility cold standby procedures) -- both as a part of the Phase IV update.

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 3996
Document:	Binder I-A Stage II RD/RA Work Plan Category: Environmental		
Location:	PLN-679 RD/RA Workplan, Appendix E, IAG-52 Interface Agreement Between Stage I and Stage II		
Comment:	General		

224. This Interface Agreement, dated January 2000 requires updating to reflect current schedule realities.

Response by Jeff Bryan. We recommend updating the Stage I/Stage II Interface Agreement (IAG-52) to reflect current schedule realities.

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 3997
Document:	Binder I-A Stage II RD/RA Work Plan Category: Environmental		
Location:	PLN-679 RD/RA Workplan, Appendix F, Community Relations Plan RD/RA Elements, Para 1.8		
Comment:	Appendix F		

225. In addition to including the Community Relations Plan, the draft Fact Sheet explaining the Stage II design should be included here.

Response by Dave Wilkins. We recommend revising the Appendix to include the draft Fact Sheet.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 3998
Document:	Binder I-A Stage II RD/RA Work Plan Category: Environmental		
Location:	PLN-679 RD/RA Workplan, Appendix G, High Level Schedule through Stage II Activities		
Comment:	Gantt Chart		

226.** This schedule does not meet enforceable deadlines.

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting, DOE has submitted a request for extension (see EM-ER-188-00). This issue is under review by the three Agencies. [This is a consolidated response to comments 3113 (Binder I-A), 3165 (Binder XXIV), 3986 (Binder I-A), 3998 (Binder I-A), and 4040 (Binder XXIV).]

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	3999
Document:	Binder I-A Stage II RD/RA Work Plan		Category: Environmental	
Location:	PLN-679 RD/RA Workplan, Appendix G, High Level Schedule through Stage II Activites			
Comment:	Gantt Chart			

227.** It appears that the schedule calendar is using working days for durations. Therefore, the time periods identified for FFA/CO activities like document review are incorrect.

Response by Dave Wilkins. We recommend converting the calendar day duration to equivalent working days. Rationale: Schedule line 162, as an example, shows 45 working day duration rather than the equivalent 32 day working days associated with a 45 calendar day duration. Additionally, the DOE has submitted a request for extension (EM-ER-188-00) and this issue is under review by the Tri-party Agencies.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4000
Document:	Binder I-A Stage II RD/RA Work Plan		Category: Environmental	
Location:	PLN-679 RD/RA Workplan, Appendix I, Decisions Database Printout			
Comment:	Page I-3, D-0003			

228. No formal decision was made to reduce the MHC throughput to 4dms/day over 2 shifts. It was recognized that throughput by itself was not a project driver. Binder XVI-C includes no distinction on throughput for the various options. In fact it states at page 10, "Facility and equipment must be sized to process on the average 1 drum per hour or 10 drums per day.

Response by Mark Borland. We recommend incorporating the proposed change into the solution. We concur no formal decision was made to reduce the MHC throughput to 4 drums per 2 shift day. The formal decision was in selection of a material processing approach. We recommend revising the decision database to state "Small Manual Option for Manual Handling Cell is selected." For clarification to remaining comment, the statement referenced on page 10 which states "Facility and equipment must be sized to process on the average 1 drum per hour or 10 drums per day", is not a requirement. It was an interpretation of a Reliability requirement. As noted later on page 18 of the same EDF-ER-139, it was determined that the throughput requirement for Stage II was flexible. For example, if the ORR was reduced by 6 months due to equipment simplicity, then 6 months could be added to the retrieval schedule.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4001
Document:	Binder I-A Stage II RD/RA Work Plan		Category: Environmental	
Location:	PLN-679 RD/RA Workplan, Appendix I, Decisions Database Printout			
Comment:	Page I-7, D-0034			

229. No formal decision was made on the use of HELP 3 for modeling the Stage II groundwater risk. In fact, HELP 3 models precipitation leakage rate through landfill covers and liners, neither of which exist with regards to Stage II.

Response by Bob Carpenedo. We recommend that the Decisions Report be corrected since we agree that no decision was made to use HELP 3 for modeling the groundwater risk. In reality this is a closure issue and not a Stage II issue.

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4002
Document:	Binder I-A Stage II RD/RA Work Plan Category: Environmental		
Location:	PLN-679 RD/RA Workplan, Appendix I, Decisions Database Printout		
Comment:	Page I-8, D-0038		

230.** A TSCA compliant storage building cannot be located in a floodplain. The discussion concerned whether recontouring the land so that it was outside the floodplain and subsequent construction of the facility would meet TSCA storage requirements.

Response by Brent Burton. We recommend changing the language in the decision database to state: "Recontouring the surrounding land and raising the elevation of the storage building such that it is outside of the 100 year floodplain will meet TSCA storage requirements."

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4003
Document:	Binder I-A Stage II RD/RA Work Plan Category: Environmental		
Location:	PLN-679 RD/RA Workplan, Appendix I, Decisions Database Printout		
Comment:	Page I-8, D-0042		

231. The Storage Building location meets the definition of AOC contained in the OU 7-10 SOW.

Response by Doug Morrell. We recommend that no action be taken in response to this comment. The decisions list identifies that the storage building location is acceptable to the Agencies and will be considered in the AOC.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4004
Document:	Binder I-A Stage II RD/RA Work Plan Category: Environmental		
Location:	PLN-679 RD/RA Workplan, Appendix I, Decisions Database Printout		
Comment:	Page I-10, D-0056		

232. EPA's comments on the 90% RD for the Storage Building stated, "A major concern we have with the document submitted is that it does not include those component documents which would comprise the 90% Remedial Design and Remedial Action Work Plan, i.e., O&M Plan; Waste Management Plan; QAPjP; detailed cost estimate; Performance Measurement points; critical path schedule; site-specific HASP; etc. as identified in the INEEL RD/RA Guidance."

Response by Mona Duniho. We recommend no action be taken in response to this comment. The 90% Storage Package referenced in the comment was an incremental submittal of a portion of the 90% RD/RA Work Plan. As such, it was not intended to be a complete 90% RD/RA Work Plan submittal. The June 2000 90% RD/RA Work Plan submittal contained all of the required content, as agreed to and documented in EDF-ER-151, Document Hierarchy and Project Deliverables. Please note that, as agreed, the project specific Health and Safety Plans (for Construction and Operations) are to be provided post 100% design and prior to ORR.

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4005
Document:	Binder I-A Stage II RD/RA Work Plan		Category: Environmental	
Location:	PLN-679 RD/RA Workplan, Appendix J, ARARs Implementation Matrix			
Comment:	761.61(a) (5)			

233. This citation is outside the scope of the OU 7-10 ROD

Response by Brent Burton. We recommend making no change to the document as a result of the comment. The citation is from the TSCA "megarule" that was included as an ARAR in the 1998 Pit 9 ESD. Thus, it is not apparent why the commentor states that the citation is outside of the scope of the Pit 9 ROD. Further clarification should occur before changing the matrix.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4006
Document:	Binder I-A Stage II RD/RA Work Plan		Category: Environmental	
Location:	PLN-679 RD/RA Workplan, Appendix J, ARARs Implementation Matrix			
Comment:	Table J1			

234.** MCP-3475 is not an Agencies' approved document and is not a substitute for compliance with ARARs. A case in point is Section 4.11.6 of the MCP which fails to mention the Off-Site Rule requirements.

Response by Dave Wilkins. We agree that MCP-3475 is not an Agencies' approved document and is not a substitute for compliance with ARARs. We recommend that the ARARs Implementation Matrix remain as is. MCP-3475 is an internal procedure that is intended to implement the referenced CFRs. With regards to the Off-Site Rule requirements, they are covered in the governing Waste Management Plan.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4007
Document:	Binder V Env/Saf/Q Docs		Category: Environmental	
Location:	INEEL/EXT-98-00848 Air Emission Evaluation			
Comment:	Page 5, Table 1			

235. The inventory data should be that expected to be within the design Stage I/II location. Table 4 of the draft Stage I Subsurface Exploration and Treatability Studies Report provides a more defensible source term for Pu especially given the apparent non-uniform disposal of such wastes in Pit 9. [Cross reference UCN 3897; 3898; 4007; 4008; and 4009.]

Response by Daryl Lopez. We recommend further evaluation of incorporating the proposed change into the document.

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4008
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	INEEL/EXT-98-00848 Air Emission Evaluation			
Comment:	Page 10, Table 3			

236. The inventory data in Table 3 is not consistent with Table 4 of the draft Stage I Subsurface Exploration and Treatability Studies Report. For example, the Pu-239 activity is listed as 24 Ci in Table 3 vs. 34 Ci in the draft Report. [Cross reference UCN 3897; 3898; 4007; 4008; and 4009.]

Response by Daryl Lopez. We recommend further evaluation of incorporating the proposed change into the solution. If it is determined that the Stage I data should be used, we believe the Stage II air emissions will still be below the maximum allowables.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4009
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	INEEL/EXT-98-00848 Air Emission Evaluation			
Comment:	Page 10, Table 3			

237. The 218 number of drums listed is inconsistent with the expected number of drums (non-empty) stated in Table 1 of the draft Stage I Subsurface Exploration and Treatability Studies Report. [Cross reference UCN 3897; 3898; 4007; 4008; and 4009.]

Response by Daryl Lopez. We recommend further evaluation of incorporating the proposed change into the document.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4010
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	INEEL/EXT-98-00848 Air Emission Evaluation			
Comment:	Page 26, Table 13			

238. The value of 5.9 E-01 for TCE AACC is incorrect. IDAPA 58.01.01.586 lists the AACC for TCE as 7.7E-01.

Response by Jim Rose. We recommend incorporating the proposed change in both affected EDF's. The value that was used is more conservative than the suggested value. However, the suggested value is correct.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4011
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	INEEL/EXT-99-00363 Chemical Compatibility Assmt for Stage I & II Waste Generation Activities			
Comment:	Page 2-1, Section 2.1			

239. The Stage I activities discussion needs updating.

Response by Bob Carpenedo. We recommend updating the Chemical Compatibility Assessment document to show the most current Stage I activities as of the issue of the final design package.

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4012
Document:	Binder V Env/Saf/Q Docs		
Location:	INEEL/EXT-99-00363 Chemical Compatibility Assmt for Stage I & II Waste Generation Activities		
Comment:	Page 4-4, Section 4.2.1..2		

240. It is stated that testing & screening may be required assumably based on an observational approach. However, given that it is not expected that structurally intact drums will be recovered, how will potential incompatible waste mixing be avoided if testing is not required for all mixed loads?

Response by Brent Burton. We recommend not making a change to the chemical compatibility assessment report, but rather addressing the comment as part of the post-Title II design activities when the operations procedure is written governing this testing. It is felt that the operations procedure is the appropriate place in which to address the detail level associated with this comment.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4013
Document:	Binder V Env/Saf/Q Docs		
Location:	PLN-651, INEEL/EXT-2000-00405 QAPjP for TAPS Emissions Monitoring Stage II		
Comment:	Page 24, Table 3-1		

241. What is the basis for selecting 90% completeness? For critical samples a 100% completeness should be the goal.

Response by Paul Ritter. We recommend no change to the document as a result of this comment. The objectives were set so that some data loss could be tolerated without qualifying the emissions estimates. Missing 1 sample in 100 or even 10 in 100, at random times, probably won't have any adverse affect on the quality of our emissions estimates.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4014
Document:	Binder V Env/Saf/Q Docs		
Location:	PLN-651, INEEL/EXT-2000-00405 QAPjP for TAPS Emissions Monitoring Stage II		
Comment:	Page 24, Table 3-1		

242. PS-9 as given at 40 CFR Part 60 Appendix B, is not a testing method, it is a specification for GC continuous emission monitoring. Also, the specification precision as stated in Section 4.6 should be <5%.

Response by Brent Burton & Paul Ritter. We recommend changing the heading for the table to reflect the fact that PS-9 is not a testing method. We agree that the precision specification should be less than 5%, per PS-9, section 13.2.

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4015
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	DOE/ID-10789 Waste Management Plan			
Comment:	Page 4-2, Section 4.1.1			

243.** Stage II is a post-ROD activity and the waste generated are remediation waste, which must be managed on-site in accordance with the ROD stated ARARs.. Whether we choose to label this wastes as IDW, it is not equivalent to RI/FS samples which can be returned to the sample site. Return of wastes to the pit would need to be in accordance with the ROD criteria.

Response by Brent Burton. We recommend that Section 4.1.1 (discussion of IDW management) be removed from the waste management plan as it is agreed that ROD criteria apply, the section adds little value, and may cause confusion.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4016
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	DOE/ID-10789 Waste Management Plan			
Comment:	Page 4-6, Section 4.1.4			

244. The statement that Pit 9 derived materials will be analyzed for PCB's requires clarification as to what representative sampling methodology will be applied. For example, for soils will the procedures proposed for listed wastes be applied?

Response by Brent Burton. We recommend that no change to the waste management plan be made because the OU 7-10 Stage II Field Sampling Plan adequately defines the sampling methodologies for the project, including sampling for PCBs.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4017
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	DOE/ID-10789 Waste Management Plan			
Comment:	General			

245. Discussion concerning Stage I coring requires updating

Response by Brent Burton. We recommend updating the waste management plan concerning Stage I coring.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4018
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	DOE/ID-10790 Pollution Prevention/Waste Minimization Plan			
Comment:	Page 3-19, Section 3.3			

246. This section needs updating concerning Stage I coring.

Response by Brent Burton. We recommend updating the plan concerning Stage I coring.

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4019
Document:	Binder VII-C App H-O	Category: Environmental	
Location:	O&M Plan-678, Appendix J, EDF-ER-137, INEEL/EXT-2000-00531, Liquid Management Plan		
Comment:	Page 7, Section 2.1.2		

247. Given that coring data will not likely become available, it may be more appropriate for planning purposes to assume that a single drum may contain up to 55 gal of liquid at a <1% frequency.

Response by Brent Burton. We recommend that the suggested assumption be included as a maximum or bounding assumption.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4020
Document:	Binder VII-C App H-O	Category: Environmental	
Location:	O&M Plan-678, Appendix J, EDF-ER-137, INEEL/EXT-2000-00531, Liquid Management Plan		
Comment:	Page 11, Section Table 3		

248. ** Care should be taken over introducing significant quantities of water in areas with high fissile material loadings. An estimate on a limiting quantity of water that can be introduced based on Dig Face Monitor reading should be made.

Response by Todd Taylor. In the 10/2/00 Agency Face-to-Face Meeting it was agreed to hold a meeting to discuss and resolve criticality issues. We recommend that this topic be discussed at the meeting.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4021
Document:	Binder VII-C App H-O	Category: Environmental	
Location:	O&M Plan-678, Appendix J, EDF-ER-137, INEEL/EXT-2000-00531, Liquid Management Plan		
Comment:	Page 12, Section 3.1		

249. It may be more appropriate for planning purposes to assume that a single drum may contain up to 55 gal of liquid and that a drum may rupture upon transfer from the ITM in the MHC.

Response by Brent Burton. We recommend that the suggested assumption be included as a maximum or bounding assumption.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4022
Document:	Binder VII-C App H-O	Category: Environmental	
Location:	O&M Plan-678, Appendix J, EDF-ER-137, INEEL/EXT-2000-00531, Liquid Management Plan		
Comment:	Page 24, Appendix B		

250. The discussion on the WERF needs updating.

Response by Brent Burton. We recommend updating the appendix re: WERF as requested.

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4023
Document:	Binder VII-C App H-O		Category: Environmental	
Location:	O&M Plan-678, Appendix L, Spill Prevention Control and Counter Measures Plan			
Comment:	General			

251. This document is incomplete.

Response by Brent Burton. We recommend not changing the document in response to the comment. The document was submitted as an annotated outline per agreement with the Agencies and will be completed post Title II. If the reviewer believes the outline is incomplete a specific comment is in order.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4024
Document:	Binder VII-C App H-O		Category: Environmental	
Location:	O&M Plan-678, Appendix M, Storage Facility Waste Acceptance Criteria (WAC)			
Comment:	General			

252. This document is incomplete.

Response by Brent Burton. We recommend not changing the document in response to the comment. The document was submitted as an annotated outline per agreement with the Agencies and will be completed post Title II. If the commentor believes the outline content is not complete a specific comment is in order.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4025
Document:	Binder VII-C App H-O		Category: Environmental	
Location:	O&M Plan-678, Appendix O, Inspection and Monitoring of Drums			
Comment:	General			

253. The document is specific to drums, however, other containers (e.g., used ITM's) may also be stored and should be addressed.

Response by Doug Morrell. We recommend that when this annotated outline is completed as a Technical Procedure that it be written to support inspection and monitoring for all approved and reasonable storage containers.

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4026
Document:	Binder XI-A SDD-20 Facilities		Category: Environmental	
Location:	SDD-20, INEEL/EXT-2000-00264, Stage II, Facilities - SDD			
Comment:	Page 82, Section 7.2.1			

254. It appears that hose reels are provided to deploy water into the RAE. However, the operational overview only discusses CO2. How water will be used in the RAE needs clarification given the potential criticality concerns.

Response by Kirt Jamison. The first paragraph of section 7.2.3, Operational Overview, describes the Dry Pipe System, which distributes the water to the facility. Section 7.4.1.4.4, Principles of Operation, also describes the Water Automatic Dry Pipe Sprinkler System. We recommend clarifying the wording in these sections to be more specific regarding this as a water system. In addition, how water will be used in the RAE is being revisited as part of the Pit Water Moderation engineering evaluation. This topic, including the bounding accident scenario, will be discussed with the Agencies (by Todd Taylor and Rod Peatross) and an appropriate path forward defined. Once these discussions have occurred additional/modified text will likely be recommended for the Facilities SDD.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4027
Document:	Binder XI-A SDD-20 Facilities		Category: Environmental	
Location:	SDD-20, INEEL/EXT-2000-00264, Stage II, Facilities - SDD			
Comment:	Page 109, Section 9.4			

255. Minimum specifications should be provided concerning the forks.

Response by Kirt Jamison. SPC-246, Electric Forklift for the Environmental Enclosure Facility, provides the specifications for the EEF forklift. Attachment A to SPC-246 lists the specification requirements. We recommend adding a reference to SPC-246 in the Facilities SDD and adding the Appendix A specifications as part of the key specifications requirements on page 109 of the Facilities SDD.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4028
Document:	Binder XI-B SDD-21 ERS		Category: Environmental	
Location:	SDD-21, INEEL/EXT-2000-00259, Stage II, ERS - SDD			
Comment:	Page 54, Section 4.1.1.4.2			

256. It may be worthwhile to include a drill (or rotodrill) to assist in sizing operations. [See also UCN # 3149.]

Response by Comment Processing CPT. We recommend adding a drill (or rotodrill) and bits to the ERS tool set to assist in sizing operations. [This is a consolidated response to comments 3149 (Binder XI-B) and 4028 (Binder XI-B).]

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4029
Document:	Binder XI-D DAMS	Category: Environmental		
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD			
Comment:	Page 38, Section 2.3.2.2.3			

257. There appears to be a discrepancy concerning the definition of "waste container." Initial retrieval will be of waste containers and samples may be collected. These wastes will be repackaged into new containers and again samples may be collected. The definition of waste container used only addresses the repackaged wastes.

Response by James Case. We recommend incorporating clarification regarding the definition of "waste containers." The SDD also includes the terms "soil containers" and "special case containers" which may require similar clarification to aid in the definition of "waste containers."

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4030
Document:	Binder XI-D DAMS	Category: Environmental		
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD			
Comment:	Page 45, Section 2.3.2.2.3			

258. A data element for Waste Compatibility Category may also prove useful for tracking purposes, as samples may be categorized by visual clues in the MHC alone.

Response by James Case. We recommend drafting a Change Request to add the new requirement to the baseline. Presently, no requirements have been identified regarding tracking for waste compatibility.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4031
Document:	Binder XI-E SDD-25 Supplement	Category: Environmental		
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD Supplement			
Comment:	Figure 52			

259. It is unclear what circumstances would lead to partially filled ITMs being returned to the Pit in the process described?

Response by Jim Rose. We recommend there be no change to this document in response to this comment. The potential does exist to return a partially filled ITM to the RAE. For instance, if an object could not be sized sufficiently to fit into a 55 gal drum it might go back for special handling. Or if a lab pack or unknown liquid is encountered such that repackaging must wait for the results of lab sample analysis, it might be temporarily returned to the RAE.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4032
Document:	Binder XI-E SDD-25 Supplement	Category: Environmental		
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD Supplement			
Comment:	Figure 52			

260. It is unclear why drums which cannot be assayed would be stored in Assay Lan Storage?

Response by Jim Rose. It is clear the question asked by the referenced decision block can be misinterpreted. Therefore, we recommend changing the words from "Can Assay?" to "Can Assay Now?".

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4033
Document:	Binder XI-E SDD-25 Supplement	Category: Environmental	
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD Supplement		
Comment:	Figure 52		

261. The process flows appears to indicate that samples would only be analyzed outside of the RAE or MHC. Real-time screening measurements (e.g., pH, PID, hand-held radiation meter, etc.) should complement laboratory analyses.

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting: We recommend reviewing the design (including DAMS) for its ability to accommodate portable instruments, and revising the RD/RAWP package as needed to accommodate them. We also recommend addressing contingent operations for use portable instruments in the Phase II O&M Plan. If it is determined later that portable instruments are distinctive to the retrieval process we recommend further evaluation of the design and incorporation of any needed changes. [This is a consolidated response to comments 3953 (Binder XI-C), 4033 (Binder XI-E) and 4034 (Binder XI-E).]

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4034
Document:	Binder XI-E SDD-25 Supplement	Category: Environmental	
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD Supplement		
Comment:	Figure 53		

262. The process flows appears to indicate that samples would not directly factor in the excavation plan. Real-time screening measurements in the RAE (e.g., pH, PID, hand-held radiation meter, etc.) should complement the DFM.

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting: We recommend reviewing the design (including DAMS) for its ability to accommodate portable instruments, and revising the RD/RAWP package as needed to accommodate them. We also recommend addressing contingent operations for use portable instruments in the Phase II O&M Plan. If it is determined later that portable instruments are distinctive to the retrieval process we recommend further evaluation of the design and incorporation of any needed changes. [This is a consolidated response to comments 3953 (Binder XI-C), 4033 (Binder XI-E) and 4034 (Binder XI-E).]

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4035
Document:	Binder XIV-A RAE	Category: Unspecified	
Location:	EDF-ER-111, INEEL/EXT-99-01251 Stage II Shielding Evaluation for the Retrieval Building		
Comment:	EDF-ER-111		

263. The activity listed for Pu-239 is not consistent with other estimates (e.g., 35Ci in the July 2000, Stage I Treatability Report).

Response by Mark Borland. We recommend rerunning the shielding analysis using the source term data associated with the published inventory in the Stage I/II area (letter RWT-02-99) and compare results, and if greater, evaluate the impact on the design.

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EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 4036
Document:	Binder XIV-A RAE	Category: Unspecified	
Location:	EDF-ER-111, INEEL/EXT-99-01251 Stage II Shielding Evaluation for the Retrieval Building		
Comment:	EDF-ER-111		

264. Is it correct to assume that no material will be staged at grade in the RAE?

Response by Phil Rice. We recommend pursuing no action with respect to the question. It is not correct to assume that no material will be staged at grade in the RAE. Some material may be staged at grade on occasion, but only in accordance with proper radiological control practices (such as additional shielding, distance, or time constraints).

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 4037
Document:	Binder XVI-C MHC	Category: Unspecified	
Location:	EDF-ER-139, Stage II Material Handling Process Confinement-Design Option Trade Study		
Comment:	Page 11		

265. Depending upon the siting location of the Stage II facility, it is possible that a number of drummed wastes will require "special handling." As this number increases, (e.g., due to TRU content) the value of the decision process summarized in the EDF diminishes and the need to fully describe the "special handling" process increases in importance.

Response by Comment Processing CPT. As agreed to in the 10/3/00 Agency Face-to-Face Meeting, we recommend providing detailed special handling processes and procedures as part of the Phase II O&M Plan, which is delivered prior to ORR. The processes and procedures should define ranges for which special handling would occur (e.g., grams of Pu, with breaks at 200, 380, 600, and 1000).

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4038
Document:	Binder XIX Storage Part II	Category: Environmental	
Location:	SPC-245, Stage II -- Nondestructive Assay Service		
Comment:	Page 2, Section 1.3		

266. The unit should be capable of handling 85gal drum over packs, also.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

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EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 4039
Document:	Binder XIX Storage Part II	Category: Environmental	
Location:	SPC-247, Stage II -- Electric Forklift for the OU 7-10 Storage Facility, WMF-669		
Comment:	Page 3.2		

267. What are the functional requirements for the forks? Is it anticipated that the fork lift be able to accommodate non-paletized loads?

Response by Doug Morrell. We recommend that Functional Requirements for the forks and drum handling equipment be incorporated into the specification and Design Requirements Document Volume 7.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4040
Document:	Binder XXIV Cost and Schedule	Category: Environmental	
Location:	Cost & Schedule		
Comment:	General		

268.** The working schedule does not support the enforceable deadline dates.

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting, DOE has submitted a request for extension (see EM-ER-188-00). This issue is under review by the three Agencies. [This is a consolidated response to comments 3113 (Binder I-A), 3165 (Binder XXIV), 3986 (Binder I-A), 3998 (Binder I-A), and 4040 (Binder XXIV).]

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4041
Document:	Binder XXIV Cost and Schedule	Category: Environmental	
Location:	90% Working Schedule Through Stage II		
Comment:	Working Sched.		

269. It appears that the durations listed are working days (e.g., Activity 162), but FFA/CO durations are calendar days.

Response by Dave Wilkins. We recommend making the proposed correction.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4042
Document:	Binder XXIV Cost and Schedule	Category: Environmental	
Location:	90% Working Schedule Through Stage II		
Comment:	Working Sched.		

270. No successors or precedents are provided identifying how activities are linked.

Response by Dave Wilkins. We recommend providing this information. Rationale: Schedule is unclear to the reader without this information, however, successors and precedents are always evolving and being changed to optimize resource utilization and influences on the critical path.

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4043
Document:	Binder XXIV Cost and Schedule	Category: Environmental	
Location:	90% Working Schedule Through Stage II		
Comment:	Working Sched.		

271. The schedule does not show linkage to the WBS to allow evaluation of cost with schedule

Response by Dave Wilkins. We recommend providing this information. Rationale: Relationship of the cost elements is not clear to the reader. Remedial design provides a cost estimate and a schedule. It is desirable but not necessary to have a one for one correlation between WBS and the cost estimate.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4044
Document:	Binder XXIV Cost and Schedule	Category: Environmental	
Location:	90% Working Schedule Through Stage II		
Comment:	Working Sched.		

272. Many of the activities (e.g., the GFE Equipment) are filtered schedules without a listing of assumptions to support the durations listed.

Response by Comment Processing CPT. Per Tri-Party agreement at the 10/3/00 Agency Face-to-Face meeting, within two weeks EPA and IDEQ will provide a list of activities from the schedule in the RD/RAWP package for which they request schedule planning assumptions. DOE will then provide the assumptions to EPA and IDEQ by a date to be agreed upon based on the number of activities involved.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4045
Document:	Binder XXVI Project Management Docs	Category: Environmental	
Location:	PLN-417, Risk Management Plan		
Comment:	Appendix A		

273. Only 3 of 25 identified risks have been closed. No implementation schedule is provided to show how these items will be assessed and abated.

Response by Carol Reid. We recommend that a Cross Product Team evaluate the open risks, determine their current status, document the results of the evaluation, and revise the Risk Management Plan as needed. Any remaining open risks would be added to the OU 7-10 Staged Interim Action Project Action Item Database to be managed by the PM IPT.

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4046
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Other (clarification/wording)	
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 12, Section 1.5		

70. The description of Stage II activities in this section describes an operational readiness review by BBWI and DOE-ID, but no EPA or State of Idaho pre-final inspection. Add a prefinal inspection by both EPA and the State of Idaho to this section.

Response by Phil Rice. We recommend not pursuing the action proposed in the comment. Section 8.7.3 of the RD/RA Work Plan clearly states that the prefinal inspection is performed as specified in the FFA/CO. The prefinal inspection already falls under the jurisdiction of the State and EPA.

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EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4047
Document:	Binder I-A Stage II RD/RA Work Plan		
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 57, Section 8.4.1.1		

71. Text states "The membrane is not designed to function as a structural member such that the integrity of the structural framework will not be affected should any damage to the membrane occur." This is ambiguous. Suggest changing text to state "The membrane is not designed to function as a structural member; specifically, the structural framework will not be affected if the membrane is damaged." (Italics show suggested changes)

Response by Dave Stephens. It is recommended that the text be revised as suggested.

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4048
Document:	Binder II Process Definition and Data Needs		
Location:	DOE/ID-10731 Field Sampling Plan		
Comment:	Page 4-5, Section 4.3.1.2		

72. Composite interstitial soil samples will be collected for analysis; these samples will be collected in one foot increments from identified grids. The text does not clearly describe how these samples will be combined for compositing; will several samples be collected at each depth increment from a given grid, and then composited? Or will one sample be collected from each depth increment, and used as aliquots for compositing? Compositing can be useful for screening purposes, but the purpose of these soil samples is to show whether contaminants are migrating. If aliquots from different vertical sections are composited, then the results from the blended samples will not be useful for showing contaminant migration, since it will be difficult to show how contamination rises or falls with increasing depth. Please specify the compositing method planned, including the number of aliquots per composite sample, how aliquots will be collected for compositing, and how the aliquots will be mixed to produce the composite sample.

Response by Beth McIlwain. We recommend adding clarification of the compositing method envisioned for collecting samples at the digface. (The original intent was to scoop fractions from the exposed digface surface to make composite sample.)

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4049
Document:	Binder II Process Definition and Data Needs		
Location:	DOE/ID-10731 Field Sampling Plan		
Comment:	Page 4-5, Section 4.3.1.2		

73. The compositing method(s) to be used should be specified for all composite samples specified in Table 4-1.

Response by Beth McIlwain. We recommend adding clarification to Table 4-1, and corresponding text sections, regarding the compositing method to be employed for composite samples.

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EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment #	4050
Document:	Binder II Process Definition and Data Needs Category: Statistics			
Location:	DOE/ID-10731 Field Sampling Plan			
Comment:	Page 4/2, Table 4-1			

74. Forty samples of drummed underburden (less than 10 nCi/gm) soil will be collected for VOC, SVOC, PCBs, and CLP metals analysis, so that a mean concentration of these samples may be obtained. The purpose of this mean concentration is not clear, since individual drums will have to be stored and handled according to what they individually contain, not according to a mean concentration as a group. Individual drums of underburden could contain widely varying concentrations of contaminants of concern, depending on the degree of release from nearby waste drums, and the proximity and original contents of those waste drums.

Response by Comment Processing CPT. As agreed to at the 10/3/00 Agency Face-to-Face Meeting there is no design impact and there is no change required to the RD/RAWP documents as a result of these comments. Samples will be taken from all drums. A subset of the samples will be analyzed in support of safe storage requirements. Anticipated movement of materials from the Storage Facility will be discussed in the RA Report. [This is a consolidated response to comments 4050 (Binder II), 4051 (Binder II), and 4052 (Binder II).]

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment #	4051
Document:	Binder II Process Definition and Data Needs Category: Statistics			
Location:	DOE/ID-10731 Field Sampling Plan			
Comment:	Page 4/2, Table 4-1			

75. Please explain the purpose of calculating a mean concentration for these underburden soils, or allow for each drum of underburden soil to be sampled.

Response by Comment Processing CPT. As agreed to at the 10/3/00 Agency Face-to-Face Meeting there is no design impact and there is no change required to the RD/RAWP documents as a result of these comments. Samples will be taken from all drums. A subset of the samples will be analyzed in support of safe storage requirements. Anticipated movement of materials from the Storage Facility will be discussed in the RA Report. [This is a consolidated response to comments 4050 (Binder II), 4051 (Binder II), and 4052 (Binder II).]

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EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4052
Document:	Binder II Process Definition and Data Needs Category: Statistics		
Location:	DOE/ID-10731 Field Sampling Plan		
Comment:	Page 4/2, Table 4-1		

76. It is noted that a mean concentration of overburden soils (again, for those soils less than 10 nCi/gm) will also be calculated; however, these soils are expected to be relatively unaffected by any releases that have occurred. Hence, they are expected to have fairly homogeneous concentrations. However, if there are wide variations in contamination in overburden soils, the assumption of homogeneity is no longer valid, and each drums' contents should be analyzed for contaminants of concern.

Response by Comment Processing CPT. As agreed to at the 10/3/00 Agency Face-to-Face Meeting there is no design impact and there is no change required to the RD/RAWP documents as a result of these comments. Samples will be taken from all drums. A subset of the samples will be analyzed in support of safe storage requirements. Anticipated movement of materials from the Storage Facility will be discussed in the RA Report. [This is a consolidated response to comments 4050 (Binder II), 4051 (Binder II), and 4052 (Binder II).]

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4053
Document:	Binder II Process Definition and Data Needs Category: Chemistry/Radiochemistry (SMO)		
Location:	DOE/ID-10731 Field Sampling Plan		
Comment:	Page 4-12, Section 4.3.3.1		

77. This section describes fingerprinting of various sludges, that is, identifying specific sludge types based on specific, easily verified, expected characteristics of each. However, there is no clear description of the expected differences.

Response by Mark Borland. We recommend not pursuing the action proposed in the comment. Section B.1 of Appendix B of the Field Sampling Plan (Binder II) provides a tabulated "Methods of Comparison" for various sludge types. The section provides unique identifying parameters for distinguishing each sludge type as well as an application discussion explaining how to utilize the parameter. If additional detail or different format of data is necessary please clarify. (Same as comment 4054)

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EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4054
Document:	Binder II Process Definition and Data Needs Category: Chemistry/Radiochemistry (SMO)		
Location:	DOE/ID-10731 Field Sampling Plan		
Comment:	Page 4-12, Section 4.3.3.1		

78. A table showing specific characteristics (color, consistency, chemicals present, and expected concentrations) for each sludge type, which is then correlated to expected screening results, would be useful. For example, will trace amounts of carbon tetrachloride in a headspace analysis definitely indicate a specific type? Or will a minimum detected concentration in headspace vapors be needed to determine a specific type? What parameters are indicators (presence of characteristic X suggests a certain type), as opposed to necessary (to be identified as a specific type, characteristic X must be present), as opposed to unique (presence of characteristic X identifies a specific sludge type)? These issues should be discussed in the context of the purpose of fingerprinting sludges.

Response by Mark Borland. We recommend not pursuing the action proposed in the comment. Section B.1 of Appendix B of the Field Sampling Plan (Binder II) provides a tabulated "Methods of Comparison" for various sludge types. The section provides unique identifying parameters for distinguishing each sludge type as well as an application discussion explaining how to utilize the parameter. If additional detail or different format of data is necessary please clarify. (Same as comment 4053)

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4055
Document:	Binder II Process Definition and Data Needs Category: Technical		
Location:	DOE/ID-10731 Field Sampling Plan		
Comment:	Page 6-14, Section 6.6.4.1		

79. Table 6.3 states that one, 55-gallon drum each of various kinds of leftover samples are anticipated from digface sampling. However, compatibility among the different kinds of samples that will be placed in a single drum is not taken into account. Leftover sampling material from one sample may not be compatible with leftover material from another sample, and hence, more than one drum of each type of sampling wastes will likely be generated. Compatibility among materials that will be packaged together should be addressed in this text.

Response by Beth McIlwain. We recommend incorporating the proposed change into the solution.

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4056
Document:	Binder II Process Definition and Data Needs Category: Technical		
Location:	DOE/ID-10731 Field Sampling Plan		
Comment:	Page 6-14, Section 6.6.4.1		

80. To a degree, the same comment as above applies to Tables 6.4 and 6.5, although these tables describe an anticipated 171 and 168 total drums of material, respectively. With this number of drums, segregation according to compatibility will be more practical. However, compatibility of wastes should still be discussed in text accompanying these tables.

Response by Beth McIlwain. We recommend incorporating the proposed change into the solution.

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Reviewer: EPA Vicki Rhoads

Significant? No

Comment #

4057

Document: Binder II Process Definition and Data Needs Category: Chemistry/Radiochemistry (SMO)

Location: DOE/ID-10731 Field Sampling Plan

Comment: Page 7-3, Section 7.2.1

81. Text states that samples will be preserved "according to the requirements of the QAPjP (INEEL 1997)." According to that QAPjP, some liquid samples require preservation with acids, in addition to being cooled to specified temperatures. For example, liquid samples for CLP Metals analysis requires acidification with HNO₃ to a pH less than 2. Please confirm whether this acidification will react poorly with any anticipated liquid samples.

Response by Beth McIlwain. We recommend incorporating a change to clarify liquid (or unknown liquid) versus water matrix and how preservation measures will be applied.